00:16
Welcome to a new episode of BFRR, Bitcoin, Fiat and Rock and Roll, the podcast that explores the intersection of traditional finance, digital assets and digital money. This is part four of our agentic payment series. Last time we pulled apart the three kinds of machine payment and asked whether credit cards or stable coins should carry them. Today, we go deeper into the type of money agents need.

00:44
and the guardrails that limit the behavior of agents. To do that, I've got two excellent guests who offer two complimentary perspectives on agentic payments. Peter Großkopf, CTO and COO of AllUnity, the regulated European e-money house behind the EURAU stablecoin and recent guest co-author of an FAZ. That's a German tier one newspaper of an FAZ.

01:13
column that promotes agentic payments to a broader public. And in turn, my SAP colleague Bernhard Schweizer joins us today, who is the head digital currency payments and assets and contributes to SAP Pay, SAP's new embedded digital and agentic payment offer. Welcome both of you. It's great to have you. Thanks for inviting me. So

01:38
before I then really properly introduce you one line each. An AI agent is about to spend your company's money. Who do you trust more to stop the agent from spending too much or being kept in a loop of not stopping to spend money? Do you trust more the issuers of digital money or would you trust more the vendors of business software, which is then used to trigger the actual agentic payment?

02:06
Peter, maybe first and then Bernhard, please. So I would say that there's one layer missing. Because from my perspective, there's also the payments layer in between. Because on the one hand, the business software, from my perspective, needs to provide the guardrails for the transaction. So there's kind of the agent acting on behalf of someone. So that can be an individual person. But in SAP context, could also be.

02:31
the legal entity. So of course this agent needs to be controlled. But there also needs to be the payment layer that validates this transaction so that that the guardrails were applied. I think the issue of digital money, which Unity also is, is just the transport layer in the end to move the money from A to B. For you the locus of setting guardrails and limits is the business software. Exactly. So the combination from business software plus the payment rail

03:00
Kind of that controls that the guardrails were really applied. Bernhard, how about you? Who would you bet on to enforce those guardrails so that an agent paying is not paying too much or being stuck in a payment loop, which it does not get out of? I certainly wouldn't disagree to what Peter said. I Peter put it right. The business process has to be the leading thing in also such a kind of payment process. And the question is why?

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Enterprises need to control spend, need to control their finances. And it's not only about the spend, you need to tie it into the underlying business processes of purchasing. So first, you

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need to ensure that you only purchase from an entity that you are eligible to purchase. Remember all those laws around in German, would say, Lieferkettensorgfaltsgesetz. So supply chain laws that oblige you as a company to check

03:59
and verify all your suppliers. This is only if you can tie it to the purchase process. So we see the purchase order as the kind of leading object that basically entitles an agent to spend, not only giving the agent the right to spend, but also putting the guardrail in terms of the money to spend. Now, the agent and the agentic spend layer underneath, so that execution layer that Peter mentioned, is just a different rail in our perspective. So

04:26
The enterprise processes need to stay intact. The approvals need to stay intact. The workflows need to stay intact. But the new things, that new layer, so I can move small amounts instantaneously at hardly any cost. And I think this is the big thing that stablecoins and blockchain-based payments really do change. The processes need to be intact. Of course, there are slight modifications. It's not order, delivery, invoice payment. It's more order.

04:56
payment delivery and then invoice gets as a post-effect document, but the basic approval process needs to be intact. Okay, so apparently it's not as clear cut as I put it in my kind of opening question. It's neither the issue of digital money alone nor the vendor of business software alone ensuring that

05:19
proper guardrails are imposed on or enforced on an agent. So it's more an architectural multi-layer question. The question is, how do you distribute the enforcement of guardrails smartly across these layers of the agentic payments architecture, really? Good. Yeah, with that, we already clarified that neither Bernhard alone nor Peter alone is responsible. And with that, let me set you both up.

05:46
properly now. So Peter, you've spent your career on the engineering side of blockchain and capital markets and currently you've landed as CTO and COO of AllUnity, the very stablecoin issue that DWS, Flow Traders and Galaxy stood up to issue fully regulated euro money on chain. With that, you're now really one of the few people shipping stablecoins that are treasure rub, which is in turn the target group of Bernhard.

06:16
which such a treasurer is actually allowed to touch for agentic payments. And then in turn, Bernhard, you've come at the same destination as you're sitting here today from the other direction, from deep inside business software that does in fact run the world's finance back office. You've taken SAP from ERP that records payments toward ERP that makes payments, which is

06:44
In my understanding and interpretation, quite a shift. You're making payments itself and now you lead digital currency payments at SAP where the job is to let a company that is an SAP customer pay in regulated digital money without ever having to leave the business process.

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It already runs, right? So to both of you, are you happy with that introduction? Is there anything you'd want me to add or correct? I think I could add a tiny piece.

07:14
Especially that AllUnity is not only a Euro stablecoin issuer. So we call what we build a multi-currency, multi-chain stablecoin platform, which means we mint at the moment in four different currencies. So we have the Euro, we have the largest Swiss franc stablecoin, like in a regulated form. We have the only Swedish Krona and also US dollar stablecoin. More stablecoins to come. So currently working also on Norwegian Krona, GBP and others on the roadmap.

07:43
And of course, and that's the second leg that we're currently building, which probably brings me into this episode as well, so that we were heavily working on the agentic payments stack with a solution as a facilitator, but also with an industry solution for publishers. And just on my side, I think it's a great introduction. I just want to make a small nuance on what SAP is doing. So we don't execute the PING, so we are not a bank. We connect the blockchain-based payment rail with the core ERP system.

08:13
For a customer that practically feels like you deal with the bank, like you deal with the normal, with the fiat payment, practically no changes in underlying processes, but you run on a more modern rail. And that more modern rail requires underlying technology, but it requires high quality assets. And you also mentioned already that we are partnering with AllUnity on that. And this is why I'm particularly happy to be with one of our important partners with Peter here in that episode.

08:41
Yeah, thank you, Peter. Of course, you're a multi-stable coin issuer, which is certainly a value proposition of any stable coin issuer as local vendors are paid in local currencies and they're not absolutely right. So SAP is not executing payments that would certainly require license, which is not in the right to play of SAP and not in the ambition of SAP. So thanks for that correction, definitely.

09:09
So Peter, to motivate the topic a bit, you wrote in this very recent piece of the German newspaper Frankfurter Allgemeine Zeitung together with our co-host Alex Bechtel that businesses should get ready for their next customer to be a machine. Is that for you still feeling like a metaphor that you're thinking about or are you really building against the roadmap already today?

09:38
with the clear tagging in mind to serve machines as customers? Well, think metaphors always start with a vision, right? so especially that claim your next customer is a machine, I think is a big, big, big vision that we see. so how did we come there? So we see technology advancements over the last year. So of course, the rise of AI, think everyone...

10:06
has seen it, has felt it. And I would say over the past one and half years, also the topic with agentic payments, so the core question. as many individuals, but also companies are using

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AI to automate within their process landscape, so that there's certain tasks that are carried over by agents. so now it's the fundamental question. So especially if there's like monetary topics involved with that, so how we can actually

10:36
let agents also trigger payments or even have like a native currency to pay for certain things. So that's the vision. there's the technology there. There's some advancements. Okay, so you could use it. So what I see from the market, and this is kind of where we more come to the mission and where we are right now. So there's, of course, always a supply demand problem, how I call it. as long as, even if agents are able to pay today, so they need to be

11:03
other agents or other interfaces where these agents can actually pay. there is at the moment we have a gap in the supply in the market and we're actively working on filling that supply gap by drilling down into different business areas. So we ended up with publishers and with data providers because we see quite a potential for them, especially selling their content, selling their data, selling their information.

11:29
agents and this can happen in different scenarios. Of course, there's a retail use case for some of them, but also B2B use cases, for example, family office running an investment hypothesis and needs information for this and also data. So this can be of different kinds. This can be articles from professional newspapers. This can be specialized articles. This can be research papers, but this can also be raw data about economy and other things. All this combined.

11:58
They're doing a research project, getting all the data, buying for it instantly to the different publishers and then coming to a result. So we definitely see this use case coming up and also to put some data to it. Because it's not so long ago that we talked and in the meanwhile, we did more than 50, so five zero conversations with publishers and data providers and we're currently onboarding 10.

12:24
So which means we're definitely moving forward and yeah, so that's definitely exciting to see a buzzword fitting with real activity and then also showing the proof that this will work. Yeah, that's really my intuition and impression too that both SAP and AllUnity

12:43
I have really moved beyond the metaphor and really are building against roadmaps with feature sets prioritized already, which I find really cool and which is often a struggle of the community a bit that the metaphors and the visions are big, but the actual building is underweighted. So there is one thing I want to get to the bottom of really today.

13:09
And the simple reason is that I have a powerful partnership in the house with SAP Pay and AllUnity and together with you, we can really do so. the thing is many financial institutions and tech institutions are really busy proving and rolling out that an agent can pay in the first place, right? Making that happen, which is of course the predecessor, but fewer companies are already answering who's accountable.

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13:38
when payments go wrong, is it the buyer himself? Because he didn't formulate his intent precisely enough in the prompt. For example, is it the issue of the money? Is SAP Pay responsible if an agent overspends? And money and limits usually actually live in two different companies, right? So one company issues a stable coin, a digital money. Another company

14:07
launches software that to some extent holds limits. But you two, if I understood correctly, correct me if I'm wrong, you two are trying to make these limits work as one system in a partnership. as we said Tereina, an SAP-backed company and partners with AllUnity to enable multi-currency stablecoin payments for customers.

14:31
Today, the goal is really to find out how far you two as partners have actually come at giving paying agents both the money these agents need, but also the limits these agents need to stay in the realm of their mandate. And here's how we're going to do that. First, we definitely get through the first four blocks. That is why agentic payments is suddenly so real, the money agents need.

14:57
the guardrails that limit agents and ultimately for the partnership between AllUnity and SAP Pay. And if there is some time left, we're also going to talk about regulations, the rule book, and then kind of more the long-term future perspective on this. So let's start with the why. First block.

15:17
Why now? Why are we talking about this now? And why are agentic payments suddenly so real? feel like in Q3, Q4, this metaphor really turned into something really tangible. again, Peter in FAZ said you open with someone telling their assistant, their AI assistant, I need running shoes. Budget is 180 euros. At minutes later, the order is just done. There was no...

15:45
card involved, no password. And you even point with Alex out that this is not a lab demo state anymore because OpenAI and Stripe have a purchasing protocol, Visa's, got Intelligent Commerce, MasterCard offers Agent Pay. Google is pushing a payment standard. So everybody's already circling the same problem of offering agentic payments and making it secure. So Peter.

16:15
McKinsey estimates agents to facilitate up to one trillion US dollars in US retail alone by 2030. Worldwide, the estimation is even three to five trillion US dollars. So in your experience, processing agentic payments using AllUnity stablecoins already today, what's kind of the realistic today's smallest version of this volume?

16:44
that's running today with real stablecoins moving. Can you give a prediction here or a fact actually, not a prediction? So first of all, it's not the trillions of dollar today. So that is kind of the outlook of McKinsey. And I think that's what most McKinsey studies also have in

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common. So there's like a large number in the years and also a large number of volumes then being estimated.

17:09
But of course, we also believe in those numbers because we see a completely new, developed channel to address customers. Especially when it comes to a high degree of automation and autonomy, there's of course the foundation for seeing volumes developing rather fast. Also, like I said in the first thing that I said,

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So there's at the moment, the volumes are fairly low as a form for my perspective, cause there's not so much supply in the market. So there are not many sites or many offerings where my agent can already pay. So where these implement, like implementations of the standards and the infrastructure pieces that you mentioned are already there. I think that's also like a second piece. like all this infrastructure, so the standards, like shopping protocols and so on. they had to evolve first.

18:00
because for an agent it would be rather cumbersome if every e-commerce site would run on their own protocol. So this would mean like, the agent could parse the HTML website individually. Because in the end the agent would need to learn kind of like the interface for each of the platforms. So I think it was definitely important that we see developments in these different standards.

18:25
Also mandate standards like AP2 and so on are very crucial for the infrastructure because once we have the standards and more sites adopting it and we have an increasing supply, we will also see the agents that are endowed with wallets. So there's the recent announcements also from OpenAI that also now integrated the wallet so that actually the first volumes can really happen. So there's different numbers.

18:50
I think it goes into like a two-digit amount of million of transactions that currently happen on a daily basis. that's, let's say that's the beginning. But my hypothesis is once we have, we did this kind of increasing supply in the market and the agents being endowed with wallets so that we see rather quickly.

19:18
development so that where this amount raises quickly. And we're still talking about the why now, right? Why does it feel so tangible right now? And Bernhard, I feel in SAP things are moving also, right? So by no means it's a given that a major global business software vendor promotes or offers a agentic payment feature. from where you sit inside SAP Cloud ERP,

19:46
What's actually changed in the last 12 months in SAP that really made you ship SAP rather than keep it on a slide and negotiate with management if and how it should be rolled out. So what changed that you really started shipping SAP Pay and offer agentic payment features? Right. mean, as you know, SAP is all in on AI and we believe AI agents will establish

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enterprise to run autonomously. So massive cost savings, massive efficiency increases on our customer side. So this is what our AI agents by and large will bring. And of course, payments is also the very important piece. It's not only the kind of type of agent payments we are talking here. It's a broader story. really making sure that we make a payment always through the best way that we optimize cash positions that we move.

20:43
idle cash into more modern instruments. it's a much, much broader story from overall SAP perspective. But diving a little bit deeper into what SAP Pay does, SAP Pay does offers exactly that instant 24 always on rail. And as we speak, we are working with Peter and team to look into how would we build that integration of what we see in the industry happening into a core enterprise system. I believe the one trillion that you mentioned, Michael,

21:13
is a great number given by McKinsey, but I would expect this is by and large a B2C number. On the B2B side, I think we have different dynamics. On B2B, we have direct spend, so I wouldn't expect a large automotive manufacturer will buy the paint through an AI agent using stable coins, not in the near future. Processes are quite rigid in companies, even in direct spend, so me purchasing a pencil will be very much driven

21:42
by established relationships with key suppliers. it's more in that area where Peter was eluding to its data. I think I do believe big in data being agentic payment use cases, its content. But I also could see compute services being basically an agentic use case for this kind of microagentic payments.

22:05
And this I think is hardly in the millions yet, at least not in B2P. So we just get started and we don't have a product yet released for such a thing. We are more discussing the roadmap. How would we build such a thing? Will we put it on the roadmap? So these are the kinds of things that we are driving forward. And we're basically working together with Peter and the AllUnity team on understanding what other clients would consume such a product? What are the 10 companies that make the offer?

22:34
Is there a fit and then basically also which governance processes and procedures does an enterprise require? On which level do I purchase? Do I have a framework agreement? Can every employee against that framework agreement task an agent to spend? Is it more an assistant or is it an agent? If I see content is probably also more that kind of notion of an assistant. put basically in a query into a chat and then basically I...

23:01
pick data from Reuters, from Bloomberg and you name it and I pay for it instantaneously. So how do you distribute budget on individuals? All those are the kind of questions we are still discussing. And yes, the core infrastructure is there. We just need to encover it into reasonable business processes. And this is what we are working on together. Thank you. Yeah. So your both perspectives make really clear why volume is increasing now and why a stablecoin issuer and a software vendor

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built on and we realize agentic payments features. So the demand is real apparently. Let's now move on and start with the two things an agent needs. That's at least in my opinion, two things are really important. Money that an agent paying can actually use to pay and then on

23:56
the second thing needed are limits, guardrails to keep it safe, secure, and also effective. So let's start with the money itself. And Peter, your article again, and also in other podcast episodes, you made this distinction. You lay out the three kinds of agent payment. One is the agent buys from a merchant like a

24:24
a human really would choose a flight that's then really larger payments like 50 to 2000 euros. Think of a plane ticket that can easily be 2000 euros. And with delivery of the product and everything that can go wrong. then two, the second thing you offer is the agent pays for something delivered instantly, a single magazine article, a data pull, a minute of compute from a hyperscaler.

24:53
for really a few cents, maybe thousands of times a day. And three, you propose one agent pays another agent without even a human in the loop. It's not so much about goods, but more about information and labor changing hands, as you explained often before. Now, Peter, you argue the card stays in the right tool for or stays the right means of payment for case one.

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because decades of chargebacks and buyer protection live there in this use case one. So make the positive case for your second and third case. What can a stable coin do there that a card physically could not in these cases two and three?

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Yes. First, would like to add also another interesting use case also what you can pay for. afterwards I go to your question again, because an agent could also buy intelligence tokens. Yeah. So there's this theory about intelligence tokens and value tokens. So intelligence tokens are the blockchain tokens. So that are also spent for, let's call it compute for AI platforms. And in the end, so also that

26:12
This theory got widely discussed when Stripe acquired OpenRouter, which is a platform that kind of like routes to the ideal models and also like when it comes to pricing for specific use cases. And here, if you on the one hand have a token kind of that have a fixed value, so like stablecoins, so they always have the same value.

26:34
You can also exchange them into intelligence token that of course kind of like can vary in their spending. So quite an interesting view on that, but this also directly leads to the, let's say, prime cases for using stable coins and agentic payments. Because first it's about the economics. A card payment usually has a fixed floor fee. So therefore it's not really suitable for micro payments. So if you go into the sense or subsense,

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27:04
areas of payments, it's not profitably going to work. here with a stablecoin, so this can break down into quite a few zeros after the comma. At the same time, the infrastructure cost, especially when you choose the right chain, so this can be radically cheap. So almost a for free transaction if you want so. And also, especially when it comes to agent to service and agent to agent, we might talk about really

27:34
100,000 or maybe millions of transactions in a very short time frame. So for putting specific information, asking another agent, asking another LM for certain information. And in the end, the money can move instantly, which then also reduces the counterparty risks for the receiver of the funds because it's right there. So you pay for what you get. Then you have the speed and finality topic. In the end, the settlement moves within seconds.

28:04
the end you don't have a charge back window here. I think that's why I also put cards and card payment rails into this agent to merchant bucket as well. it's really proven that if the especially physical goods are not delivered properly or if there's some quality issues, so there's multiple ways to get my money back and to get a refund. So therefore I think it's proven on that side. I think in the end

28:33
So when talking about blockchains and stable coins are issued on blockchains, stable coins of course can provide more features. Like a stable coin could also offer certain chargeback windows and so on. So the common standards for stable coins at the moment don't support that. So like ERC-20 tokens, but I could foresee that in the, let's say, longer future, there's also room for another token standard that would also fix that topic. So therefore I would say the card payments is like for midterm and like long term, think.

29:02
stablecoins could take over, but I'm also a stablecoin maxi, must say. And then we also see, of course, programmability topic for stablecoins. stablecoins itself are just like a technical unit so that you can move, but you can build a lot of automation around stablecoins. especially when also talking about agents, agents are software programs that take individual decisions. So in the end, you can bake.

29:29
blockchain and stablecoin infrastructure quite tightly into the agent stack, which then again leads to further opportunities of automation. Okay, so thanks for making me read a positive case for stablecoins in this agent to agent and agent to service scenarios, in which then really credit card payments may longer be the most effective and efficient form of money to use. Again, for anyone new to this, stablecoin here

29:58
is really not a speculative crypto plan. saying this because I could imagine and Bernhard proved me wrong, that treasurers may hear stablecoin and immediately think of, that's crypto, that's speculative. Yeah. But it's really a token on a blockchain packed one-to-one to the Euro and under Europe's MiCA, it's regulated as e-money. So this is a regulated form of money which lends itself perfectly

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30:26
to regular payments, be it an agent or a human or a legal entity. Peter, is that the right way to say it? A regulated euro in programmable form? And now here's also the bridge to the treasury world, which through Bernhard we simply have today as CFO. He has blockchain and he has volatility and risk and you're issuing euro as an e-money token backed one-to-one redeemable at

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at under article 49 of MiCA, think. So in plain treasury language, what does redeemable at par by statutory right actually guarantee the holder and what doesn't it cover? So how far does this redemption go? Yeah, so there are multiple questions and one question. So first of all, also what does programmability mean? I think there was a lot of discussion around programmability of monies, also around the digital euro.

31:24
Yeah, because they're like the people were like the people who are designing it were discussing like, does it need to be programmable or not? And I think there was definitely an agreement that it shouldn't be programmable because like different units of the digital euro would be different to each other. So if there's like one token, you would implement a kind of you need to be 18 to buy a beer.

31:46
And then you send it over to someone else, of like that, so that functionality would still be baked into the money. So therefore, kind of like money needs to be neutral and kind of doesn't need to have like the ability to be programmed. But the stable coin becomes programmable because it's open source money. Yeah. So the, like the token standards that stable coins are built on top are open source. And this means that they become like a standardized and broadly distributed public.

32:15
common knowledge. And so I often compare it with, for example, the DIN A4 paper standard. So DIN A4 paper standard is standardized and every printer in the world accepts it. And so if I want to print a letter, whatever, in South America and I only have DIN A4 paper with me, so I would be able to print because it's standardized. And I think that's the same with stablecoins. And therefore, for example, looking into the current distribution and infrastructure, it's relatively easy.

32:44
to implement them into FinTech applications, into payments use cases, and also, for example, with the SAP case to integrate it into SAP because it's a standardized piece of technology and everyone can integrate it easily. So I think that's the strength. And that's also, like in the public discussions, so I'm a technical guy from my origin, and I pretty much grew up with the open source world and all its benefits. So therefore, I'm...

33:13
reaching for more than two decades now about open source technology and about its values. I think we see here like a very fast distribution because it's open source money. So that was the response to the first question. And then now to the second regarding the redemption. From the regulatory standpoint, stablecoins in Europe under MiCA regulation

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33:36
are e-money. And e-money is like a regulated form of money that exists for more than a decade and is, I would say, also widely distributed and pretty proven in its usage because there's like a lot of use cases where we use or where we interact with money and where we actually interact with e-money, but we don't know about it. So it can be behind voucher cards, like when we go to the supermarket and we see all these whatever voucher cards that we can buy, sometimes it's e-money.

34:05
Also, lot of fintechs are using it. So the product feels like a bank account, but in fact, it's based on e-money. Also, Revolut also used e-money a lot in the past and is probably one of the fastest growing banks at the moment. So that's the basis. And MiCA put some additional regulations on top of that. So for example, that we need to have more than one bank where we keep the funds. Yes, because a stablecoin should be...

34:32
backed one by one and also redeemable one by one. So I pay in one euro and get one euro stablecoin. If I redeem that one euro, I also get one euro back. So that's the basic principle. And to achieve that, we have the guarantees of using more than one bank account for the backing. So also as at AllUnity, we have transactional bank accounts and also a bunch of reserve bank accounts where we distribute the funds over multiple banks. Plus, so when it comes to to yield generating,

35:02
financial instruments, we are allowed to invest into high quality liquid assets. So which in the end means it's investment products with a high market depth so that you can liquidate that easily also in fast markets. So that there is enough liquidity to get a refund. So to when liquidating them. And there's another rule on top that we also need to keep 2 % own funds on top of the whole funding. So which means

35:29
Every stable coin is 102 % backed and all these contracts together on one end, multiple banks and also high quality liquid assets as a backing plus 2 % own funds. think that makes it a pretty stable form of money. so I oftentimes also in discussion rounds, especially when there's also questions around banks and their role. So I think like a bank.

35:57
In the end, of course, also has regulations and it needs to make certain things sure. But in the end, we're backed by multiple banks. And so we're not lending out the money. And I think we have far less risk on the balance sheet. So therefore, think when it comes to payments use cases, stable coins is probably the safest form of money that you find in the market today. Thank you. Bernhard, can you confirm?

36:22
Or give an intuition to the extent of which treasurers that now can really consider stable coins as one payment rail in the SAP environment. To what extent these treasurers appreciate stable coins or reject them or kind of risk averse and equal stable coins with volatile crypto assets. Can you give us an intuition here?

36:48

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I mean, first and foremost, we need to still do lots of education. And I think, Peter, that was a great pitch on education. So treasurers always ask what is the counterparty risk, especially an instrument that they don't really understand, at least today. I think this was a, I would recommend every treasurer to listen to Peter, how you exactly did explain how a stablecoin is back. I think this is very, very important. So I would take that, but we need to make it really known to the treasury community. So this is one counterparty risk is always top of the list.

37:18
Second is liquidity. So how quickly can I really go in and out and treasury is thinking in terms of tens, hundreds, if not billions of millions. So it's really huge amounts in the deep liquidity you need to have in various places. I think this is also a key question that treasurers ask. And then last but not least, it's about how do I account for it? In Europe with Stablecoins being e-money, we feel very comfortable saying it's cash equivalent in the US.

37:47
On a global scale, this is slightly different. There's no clear FASB guidance yet. It's basically in the makes. If you read through the documents of the audit firm, so if you have redemption guarantee plus if you have enough liquidity to hold true to that redemption guarantee. So if I have now, let's say a billion EURAU, so the AllUnity Euro Token, so can AllUnity really give me a day later that...

38:14
billion back or do they need time to liquidate? think these are the kind of discussions that are basically done by treasurers. I haven't seen hardly any treasurer that holds a billion stable coins except for some crypto-nators, but these are the kinds of artificial discussion where they try to raise the bar and probably make it more difficult. So these practical topics, I believe we are going to address and it's mainly education.

38:39
On the use cases, it focuses very much on cross-border payments and difficult corridors. They very much like AllUnity's multi-currency stablecoin strategy because that gives also benefits on the FX side. I think this is really, really important and I think this is really a very, very good development that the AllUnity team does here, especially for, I would say, than niche European currencies, not the euro. We have many euro tokens. We don't have a real good Swiss francs token. We don't have a Swedish krona token.

39:08
and we don't have any other well-done European token. think this is the kind of unique selling proposition of AllUnity to really offer a stable coin, e-money in my currency, not only in euro, not only in dollar. And I think it's this kind of proposition that we need to educate the market on. think especially in FX, I think that can be quite attractive having that kind of instant FX.

39:34
lower spreads than on the traditional markets. And then we can even in Europe compete in those SEPA like payments to Denmark, to Sweden, to Poland, et cetera, et cetera. Excellent. So that's the money really as the first input or the first requirement that agents need to pay, in my opinion. The other thing really are limits and guardrails. So money alone isn't enough for a agentic payments to be

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40:02
really effective. Something needs to hold the leash. Something needs to ensure that agents don't sprawl, they don't overspend, they're not stuck in spending loops in which they do the same payment ever and ever again, in which they don't locally optimize a spending goal, which globally viewed was entirely not the idea.

40:25
So guardrails are needed as a second factor requirement or input for any agentic payment. And Peter, you name three things an agent needs around the money really. So spending limits that the agent cannot edit. Your example is five euros a month for a research agent and not a cent more beyond these five euros. You also call for mandates. So cryptographically signed power of attorney, which is

40:54
what Google's AP2 protocol is reaching for with its standard proposal. And the third thing would be common rules for identity and liability. And Bernhard, hold that list in mind because at least two of those sound to me like they could live in an ERP or could be offered by a software vendor. So really to this five euro limit that Peter's writing about in the AllUnity world, that could be enforced by the issuer.

41:23
But Bernhard, in the ERP world, it's a spending profile, no more than five euros on research per month for an agent, which is tied to a cost center and an approver in SAP Cloud ERP. So really make the case for us, why is the ERP the right place to hold that leash, that five euro limit, if at all, and not somewhere else in the

41:53
in the security architecture. You do all your procurement, you do all your financial planning, you do all your financial controlling in the core enterprise system. And this is why I think you need to also tie the agentic spend to the core enterprise system. And it very much starts with the procurement. So first, someone needs to authorize an agent to spend. And then of course that is tied back to into cost center or on order.

42:20
into a kind of what we technically call a cost object. So this is the kind of starting point. It's the kind of purchase order. Very much like a human gets authorized to purchase any kind of good, you need to authorize that agent through a purchase order. Again, the ties back. You have vetted suppliers. You ensure that they are controlled, that they comply with everything that you do. And this is basically Core ERP and Core Finance functionality.

42:50
And we need to now, in the next step, tie that into an agent. an agent basically needs to validate. And there's a very nice model that the International Monetary Fund has published. They basically talk about a three-layer model. On layer one, they talk about the agent itself. They call it the intent and orchestration layer. And this is probabilistic. So if you ask the same question, Michael, than I do, you probably get a slightly different answer and your agent probably taps into a slightly different source than mine.

43:18

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you never can predict it. next comes the control and authorization layer and that must not be probabilistic because otherwise you probably spend either if you have a $5 limit $5 at one cent or $4.99 so this must be really deterministic and this is basically what the core ERP can bring to the table. And last but not least and we discussed that in the previous block that's the settlement layer. This is the blockchain rail, this is the asset and that of course needs to also be final

43:48
And it needs to be deterministic because if I charge a cent, I want to get a cent, not 0.9 or 0.1. So we are basically playing the control and authorization layer and then basically linking that into the settlement layer. So the one aspect is the European aspect. What we also do have with an SAP is that's a pretty new solution that's called the Business AI Hub, where we can manage agents. And this is basically the second aspect. It's basically an agent authorized to spend.

44:18
So we have the purchase or the limit, we have the kind of, call it the agent inventory. We need to bring those two together in order to really kind of, and now getting a little bit more technical to sign a blockchain transaction for a spend. Got it. Yeah. And now Peter, straight back to you. AllUnity already ships what it calls an agentic paywall and an agentic facilitator. So you are building guardrails too.

44:47
Why would a company trust the guardrail that ships with the money over the guardrail that ships with its system of records? So why would a company, why and how would a company choose between the guardrail currently explained and offered by Bernhard over the guardrail that in your case, Peter ships with the money itself or is part of the AllUnity portfolio.

45:16
Can you help us navigate this decision of a company, which kind of guardrail to use? Yes, from my point of view, like a traditional bridge needs two pillars. And so there's the one pillar. So pretty much what Bernhard described, so that there's also the different layers on, let's say, the starting point of the process. But then we always need to keep in mind that there's the counterparty. So first there is like another merchant where the...

45:45
call it the SAP customers going to buy something from. So first, there needs to be some interaction, like pricing data needs to be exchanged. So what is all about and so on. And then the purchase decision can be formed and then validated against the mandate on the SAP side. So that's the first part of the process. And then the actual settlement happens. And from my point of view, also, as I mentioned earlier, also the settlement.

46:12
doesn't happen on like one layer. So there's also multiple layers in between. So first, kind of that, like the purchase is now being initiated. So there is the facilitator becoming active and the facilitator is the technical component that we're operating, which in the end manages the payments from one wallet address to another one. Yeah. So there is, we're not an intermediary or something. the wallet or the transfer happens from the kind of like from the buyer to the seller.

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46:41
And that's it. And the facilitator manages this process to control that the money actually moved and gives the signal that also then, for example, if a data set is being bought from the merchant, that also this data set can be shipped to the customer. kind of like that process happens. And now kind of really distinguishing between like the facilitator and the issuer. because I would even argue that it's not the job of the issuer to

47:10
actually stop a transfer and so on. Because in the end, what we make sure is with the paywall, which is the application layer and with the facilitator, that these mandates that are cryptographic designed so that we can control them. that we in the end make sure there was a mandate on the customer side so that we can also verify it on the backend side. So that's pretty much the bridge that we built back with the two pillars. then the settlement happens on chain and the issuer only issues money. The issuer is neutral.

47:39
So there's just pieces of money and these pieces of money move between the buyer and the seller. And also the issuer doesn't have like any involvement in that process because that money is kind of minted before and then is being transferred between the two parties. And in the end for like an agentic purchase, the issuer is not involved at all. maybe my glib bit just add on top of that. I like the picture by the way, Peter, you said the two pillars.

48:08
In more finance technical terms, we are very much on the accounts payable side, on the buyer side. Peter is building very much on the seller side and the receivable side. And of course, you need both. You need the payer side, you need the vendor side. And if those fit together, then you have a real complete solution. This is why we are collaborating on that exactly. So it's that neutral term, which is the stablecoin, it's money. I the bank mode per se is always neutral in a way. It's e-money.

48:37
And then we have the tech, we control the spend on the buyer side. We facilitate the receivables on the supplier side. One is SAP, the other is AllUnity. And we work in lockstep to really make the process a seamless one for both parties. Excellent. So if there is one lesson learned in this podcast episode, is the limits are not clear cut things or not one institution in that process chain.

49:03
is entirely responsible for managing these guard raising limits. So it's really across architectural layers. there are multiple. One is the IMF one in which there is a control layer, a deterministic one in the middle to mediate between the probabilistic orchestration layer sitting on top and then the deterministic settlement layer in which then ultimately, for example, an RTGS

49:32
central bank money finally settles any kind of transaction. And so maybe I came a bit naive in this recording, assuming that Libits would be solely either within the stablecoin or managed by the stablecoin issuer or solely managed by SAP, but it's a more multi-layer, multi-process step thing. And ensuring across this process chain that limits and guardrails are accounted for.

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50:01
is then the big challenge. Okay, let's now ultimately, since I have the two of you in the room to also talk about or let's test it against the reality because you've actually shipped something together. There is something live in production. On the 12th of November, you announced that for AllUnity stable coins, that is

50:29
Euro, Dollar, Swiss, Franc and Swedish Krona went live as selectable payment options inside SAP Cloud ERP via that recently announced SAP Pay offering. Can you maybe help me in precisely understanding why you launched this collaboration, how exactly it's working?

50:55
Maybe Peter, let me get started and then you can chime in. First and foremost, a solution like SAP Pay, of course, needs the money, needs the e-money tokens. And we are very, very cautiously selecting the e-money tokens that we take on the platform. First, it's upon customer demand. So is there really a customer in need of a certain token, in need of a certain stablecoin? This is one. And second is the quality of the issuer. So are they compliant? Are they MiCA compliant?

51:25
And if you look at our platform, of course we have AllUnity, we have other big tokens like the ones from Circle. I think this is not a secret. USDC, EURC are listed there. PYUSD is another one that we have. But you probably also noticed that I didn't talk about the biggest token, which we haven't listed by market capitalization. Because it's really about the quality of the token to really make it a true instrument for our treasure. And we talked all about the things that really do matter to a treasurer.

51:54
one to one pack guaranteed, one for one redemption guarantee, having a solid audit of the reserves and so on and so on. And in Europe, there are some issues, there are not too many issues and I think UTSRMouts are an issue. Yeah, and maybe also adding to that as we're coming with that multi-currency, multi-chain stablecoin platform is actually the why we're building that. So because especially when we started, I think

52:21
Euro stablecoins or local stablecoins have been kind of a niche phenomenon because in the crypto world, they were not really needed because most volumes and liquidity was happening on the US dollar stablecoin side. But we with AllUnity really believe, and that's what I always call the second hype cycle of stablecoins. We really believe that stablecoins will become the technical infrastructure for real world applications and use cases. So what better example is in the world than SAP?

52:51
for real world examples, right? Or real world use cases. So because it's real companies, they're sitting in almost any country of the world and they deal with a multitude of different currencies. And we're definitely the platform that pushes the most into this direction to be able to offer the local stable coins and the currencies that our customers need. And so that's the four ones that we named already.

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53:19
So there's more on the pipeline. I think this also gives the SAP customer really the opportunity on the one hand, if it's just the treasury payment use cases, so that are happening by the ERP, I think that's the starting point, but also then developing further in the direction of agents and agentic use cases. And then it starts with availability of currencies on the platform. And then it continues to also with the use cases in different directions and starts with FX.

53:48
And remittance use cases, payments use cases and now continuous with agentic payments as well. Yeah, I'm really a big fan of this swap from the financial economy into the real world or real economy. Peter, you referred to it as the, how did you name it, Peter? The second kind of hype, wait, second hype cycle of stablecoins. In fancier terms at our

54:16
In our research at the University of St. Gallen, we sometimes refer to it as the infrastructure realization of stablecoins or more precisely of stablecoin-based payment arrangements. So it's really this adoption in real economy. Yeah, in fact, I mean, a major part of world economy is run on SAP systems that will not go down through business AI.

54:39
And yes, it's fascinating to observe how stable coins are now at least a regulated form of them because we are talking here B2B, at least regulated stable coins are really conquering the real economy and the business world. That's really a cool phenomenon. So to conclude your partnership really and the production you're running. this announcement of the partnership lists four treasury use cases.

55:08
One is paying a Swiss supplier in a Swiss franc stablecoin. So that's really local currencies. Then there is intercompany cash moving between entities in real time within one company operating multiple groups on the planet maybe. Then there is foreign exchange at the point of payment and removing manual reconciliation, right? So for treasury use cases. Now,

55:34
both of you, which one of those is pulling real demand right now? No need to say customer names or clear volumes, but maybe you can rank them in terms of real demand and which of them is kind of an offer not demanded as much as you wished to be. Yeah. I if I could start here, the biggest use case is inter-company money transfer.

56:00
Customers are especially looking at difficult corridors like Argentina or Africa. So those are the use cases. It's about being instant, but also serving those corridors that the traditional banking system doesn't serve so well. So this is in terms of volume, of course, the biggest one because for inter-company, you rather move tens of millions, a single payment to big li is not of that size. The good thing with that use case, why we also do recommend customers to start with that is

56:30
you have it all under your control, so you do not need to look at the counterparty. Then we see payments as a second big use case that also address those more difficult corridors. The

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challenge there still is you need to find a supplier that does accept stablecoins either natively or you need to run through an intermediary again and then we talk about that notion of a stablecoin sandwich where you basically, in a full stablecoin sandwich, start with a fiat currency

56:58
have a service provider purchasing the stablecoin, moving the stablecoin in the other side of the world, basically redeeming the stablecoin and moving it out via local rail. So those are the kind of scenarios that we see. And if you look at market studies also from McKinsey that they have done, it was on tokenized deposits, which is mainly more the first use case that's a factor of 15 higher than B2B payments. So treasury use cases, inter-company use cases,

57:27
basically determine the demand. And I think this will probably be still the case in the next 12 to 15 month. Supplier payments will pick up and then I hope very much for the more modern forms of money addressing those new use cases that basically were the big topic for today. Brilliant. Yeah. And that concludes our four blocks, right? So we established why this is the

57:52
inflated peak of the agentic payments movement. If you will, we explored the two things that agents need, money and limits. And we also talked about your very partnership, which is one very cool example, not a prime example of this whole real world adoption of stablecoin. So the second wave of adoption really, and I would assume a way larger one that the financial economy

58:21
and crypto economy only adoption of stablecoins. So let me summarize what at least I learned today and feel free to add any learnings or summaries from your end. So first we mapped the money. So cards stay where humans need protection and stablecoins are really then applied and earned their place in these machine to machine.

58:46
and fraction of a send world. So machine to machine or machine to service where cards have a hard time following really. I also learned that money and limits usually live in different companies. So it's not like one company in the process chain and in the ecosystem is responsible for money and limits all in one house. A third, we really got

59:13
past the press release, which all of you most likely already read, onto what is live today versus what is still a pilot or a promise. And we learned which of these four treasury use cases are most relevant. And ultimately fourth, I really learned that most likely this real world adoption is really kicking off. And it's interesting to see that agentic payments is contributing to it, or at least

59:41
interconnecting with this trend. So it's not only real world adoption in deterministic software, but also now the agentic, the probabilistic part is driving part of that real world adoption. So Peter, thank you very much. You wrote that line that an agent must never hold its own leash. And you sat here and let me ask whether that leash belongs to you or Bernhard without any flinching. Thanks for accepting that rather critical question.

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01:00:09
Thank you, Bernhard too, for exactly the same. You took some hard questions. Yeah. And if this episode made the petty drop for one person you work with for some listeners, send it to them. That's worth more than to us than any algorithm in the podcast distributors. And if you got 30 seconds.

01:00:31
A rating helps other people find the show, which is really important for driving that education that Bernhard referred to in the episode earlier, particularly among treasurers, apparently. You will find the full episode on YouTube and other podcasts, distributors, really. Yeah. And the conversation on this really episode will continue over on LinkedIn, but also in our Telegram expert.

01:00:57
If you want to go deeper with people live, join the conversation on Telegram in our expert community. You will definitely find the FAZ article written by Peter Großkopf and our co-host Alex Bechtel, which also argues for money and limits being to the most important factors for effective agentic payments.

01:01:24
Wherever you're listening, ensure to subscribe also to the next part on agentic payments coming up in December, where we then really do kind of the end of year review of what we've learned about agentic payments, the role of digital money in agentic payments and what is likely going to come next year. Until then, until next episode, this is Bitcoin Fiat and Rock and Roll bringing Europe's perspective on digital currencies to the world.

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