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Welcome to a new episode of BFRR, our Bitcoin, fiat and rock and roll podcast that explores the intersection of traditional finance, digital assets and digital money and helps you understand how digital assets and digital money will evolve in the future. I'm co-host Michael Blaschke. Today I'm joined by our guest Stefan. Stefan Arnold is lead architect of the SAP Digital Currency Hub. The product SAP has built to bring stablecoin and blockchain based payments natively

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into enterprise ERP workflows. Stefan has spent years at the frontier of enterprise grade payment architecture from SMBs all the way to global enterprises. And he's the person shaping how ERP customers actually unlock the potential of digital money with their core financial processes. He's guided by a principle I genuinely love that perfection is not achieved when there's nothing left to add, but when there's nothing left

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to take away. Hi Stefan, great to have you with us today. Hi Michael, thank you for the invitation. Happy to be in your podcast. Brilliant. Are you happy with your introduction? Is there anything to add? Oh yeah, it's very precise what you described. And the only thing I could add is that it is not just for, let's say, my business life, what you just explained. I'm also very passionate about cryptocurrencies and particularly Bitcoin in my private life. And this is also how things came together. So I was

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very enthusiastic about Bitcoin and that led me to uh SAP and the digital currency hub where I am now working on the role you just explained. And that is, let's say a perfect combination for my private interests and also for my business. Brilliant. also always feels fulfilling to really combine personal and professional interests in your professional role. So

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Today's episode is really about a tension that I think sits at the heart of institutional digital money right now. On one side of the ecosystem, you have extraordinary stablecoin infrastructure being built by traditional banks like BNY Mellon and JP Morgan and by native crypto players like Circle and Coinbase. On the other side, you have corporate digital money emerging, PayPal's PYUSD, the growing universe of tokenized real world assets.

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and large platforms starting to build their own programmable money layers. And in the middle of all of this, you have thousands of corporate treasury departments and finance teams who are genuinely overwhelmed, I think. The question I want to explore today is what is the missing piece that allows mainstream enterprise adoption to actually happen? And this IT architecture, the plumbing, nobody talks about, at least the conferences I attend.

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actually one of the most important answers. So the title I envision for today's episode is Crossing the Jazzum How Architecture Unlocks Stablecoin Adoption. And that's exactly where we're going right now. So Stefan, let me start by painting a little picture for our listeners. And then I want you to tell me whether I've got it right or whether I'm missing something important. So as I just said, when I look at the stablecoin

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ecosystem today, I see what feels like two distinct worlds converging from opposite directions. the infrastructure supply side, you've got traditional financial institutions. So JP Morgan's Kinexis platform, formerly JP Morgan coin, doing intraday repo and cross border settlement. BNY Mellon building digital asset custody at institutional scale. And then Europe players like Societe Generale with the Euro.

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coin, vertible and a growing number of bank issued e-money tokens coming to market under Mika. Then on the native crypto side, you've got Circus USDC on multiple chains, Coinbase building, custody on off-ramp infrastructure and Tethers USDT remaining the dominant stablecoin by volume globally, despite all the regulatory noise around it. And then on what I'd call the demand side of the equation, something new is happening. You've got

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Paypal with PYUSD trying to turn the payments ecosystem into a settlement rail. You've got the tokenization wave that is BlackRock's Biddle Fund, Franken Templeton's On-Jane Money Market Fund, the growing interoperability between tokenized deposits and DeFi liquidity. And if you project that trajectory forward, it's not hard to imagine a world where Amazon or Walmart decide they want their own form of programmable corporate money for supply chain settlements.

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And now sitting somewhere in the middle of all of this is the CFO of a mid-sized European manufacturing company who has read many white papers, attended many conference panels and still has no idea what to actually tell his or her treasury team to do on Monday morning. So Stefan, from your vantage point at SAP working with enterprise customers across this entire landscape, is that characterization fair? And what does the

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Chasm actually look like in practice when you're sitting across from a real company Yeah, first of all, what you explained is is completely on point That's that's exactly what we need to solve So we have a lot of amazing startups that build really great products on the other hand. We have the let's the Treasury Department CFOs and other executives that need

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reliable payment rails. And this is where, let's say, still a bit of a disconnect exists because we don't need just a perfectly designed Web3 product, but really an end-to-end solution that fits the needs of a large enterprise. And that is way more than just the technical Web3 product itself, because from a treasury perspective, it's a uh payment product that is

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cheaper, faster and transparent and more fault tolerant and all these let's say qualities. But whether or not that is being using a stable coin behind the scenes is not super relevant unless you're really in a tax-savvy company. So it's mainly about the qualities of the payments, the costs, the speed, the transparency and

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And all that. And this is where the disconnect still exists. would say these, all these startups that build amazing products, they cannot take care of the whole end-to-end solution because they really need to be very focused. They need to be laser focused on their product. They need to go through different funding rounds, round by round to deliver their milestones and to deliver what the customers expect. But.

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expecting from a small startup to solve such a large end-to-end solution is way out of scope. And this is why it needs integration partners or anyone else that is putting all that puzzle pieces together. Because at the end, it's the stable coin itself or the cryptocurrency itself is never the product that a CFO or a treasury department will buy. It's always the end-to-end solution.

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Yeah, brilliant. So when you refer to startup, you mean these blockchain native web free startups that really were born in and grew in the blockchain native world. And of course, are not entirely socialized in the enterprise grade world. And therefore, of course, cannot fully understand the needs and requirements of a treasury team at a enterprise grade or

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SMB grade business. is that what you're referring to when you talk about startup? On the one hand side, yes, of course, but also let's talking about or let's talk about BNY Mellon, for instance, such large institutional corporations in the meantime also provide their stable coin platforms. But initially, they need to think outside the box and behave, let's say a bit unusual for their

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for their colleagues. So they need to be like an internal startup and an intrapreneurship for instance is an ideal way to get started in such a regulated environment that you can act and innovate independently from all that, let's say very tough restrictions and obligations such financial institutions have to apply with. And this mixture of being a pure startup and

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being inside of a large financial institution is I think the ideal home turf to get started with with new innovation in that area because it can provide all the legal due diligence, all the customer focus while being in a, let's say a safe harbor where you also can fail, you need to fail. And that is, I would say the, an ideal set up. this is why we also see that.

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quite often in the meantime. And I would also refer to those kinds of innovation as a startup. But in the meantime, most of these that you just mentioned have already outgrown, I would say the initial startup phase and became serious products or platforms. Yeah, I totally understand and agree. So beyond the, let's say garage startups in web three.

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that really starts in super small teams without the funding of a mother firm behind it. So beyond these, let's say, crypto native startups, you have the intrapreneurial startups that are well funded. I'm for example, now thinking of Allunity, which is a well funded startup with Galaxy, Flow Traders and DWS backing it.

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I appreciate you adding this nuance of different sources of innovation, block payment innovation or DLT innovation. But nevertheless, think this chasm I refer to still holds true. So independent of where it comes from, there is still a gap that needs to be crossed between this innovation emerging bottom up. And then on the other hand, it's adoption or consumption.

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So I know you represented SAP in the annual meeting in Davos, or at least in our SAP house in Davos, close to or associated with the annual forum or annual meeting in uh Davos. So did you observe this gap of adoption? I initially referred to there also. did you hear statements complaining about this very gap? No. think the digital

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asset space or in particular stable coins and all other kinds of tokenized deposits or tokenized cash became way more serious. Typically innovation in traditional finance is not that fast as it is in the decentralized finance area. So it is, I would say at the speed of light, I would say compared to traditional finance.

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This is also a bit too fast for adopting such new technologies and processes in larger companies. Because you also need to have the full audit trail, the due diligence and all that. And in such a rapidly evolving environment, it's sometimes hard to estimate whether the, let's say the final product really makes it to the market or are there any constraints? You also need to have a

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legal framework in place to provide the clarity for the company to really use these stablecoins. all that became much better in the last year. And all these discussions became much more serious. And it's no longer just the innovators that talk about it. It's also, I would say, close to crossing the chasm what we were just discussing. And this is

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mainly because of the disruptive aspect of distributed ledger technologies, I would say, because you are not that used to these blockchain formats in contrast to IBAN, for instance, where everyone is used to. And you also need a uh different processes. So for innovators, it's okay if you have a discontinuous innovation where you need to do things differently.

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but really to make it mainstream, it need to be, let's say, a continuous innovation. And in between, you need to have a solution that absorbs all these disruptive effects. Like one-time addresses, for instance, is a good example. So it's a best practice in the blockchain space to use one-time addresses. It's absolutely normal in Bitcoin, I would say. But for a company, it's very complicated.

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because usually you set up your payment preferences with your suppliers and that will never change. Or for decades, for instance, you always pay through that particular bank account. But how should you message that address, this blockchain address securely to your customers? I mean, if you do that by mail, it would be a manual effort nobody wants to do. And all these master data governance processes need to be

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the very in the automated or in the very same way as you're used to it. And this kind of disruption is, I would say, still blocking stable coin innovation from becoming mainstream. And plus a couple of more, but silly things like that. How do I message that? And unless these questions have been solved or there is a product in between that connects both worlds, it's hard because the mainstream customers

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want to have continuous innovation. Excellent. So Stefan, cannot help it knowing you attended the Davos annual meeting and represented the firm and our stable coin thinking there. And I really think you were there in the firm's capacity and not representing your own views only, I guess. So is there anything as you observed there when it comes to

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institutional blockchain and stable coin adoption that you really want to share with the audience, something that stuck in your mind. I mean, it can be also a bit of a catalyst event that SAP provides such a solution for stable coin payments, because that's also, I would say, a really a massive signal to the market. I mean, if it wouldn't be really serious regulated and all that fulfill all these

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enterprise qualities. mean, SAP wouldn't ship such a product and this was still a surprise for a couple of people I was talking to. They didn't know that so far and um this was really exciting to see how positive the people reacted that I was talking to. Brilliant. Happy to hear that. um

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Let's go even deeper into the challenges because I think this is where the story gets both interesting and a bit uncomfortable for everyone who has been saying for years that institutional adoption is just around the corner. So when you were in Davos, so when you're

in a workshop with a corporate treasury team or a head of payments, what are the real blockers you encounter? My hypothesis is that the conversation has moved well past

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But is blockchain technology real into something far more operational, like sending one-time addresses, as you just referred to? is that where you find yourself? Yes, exactly. So it's no longer the question whether stable coins uh will be available in five years. I think that question is in the meantime, no longer relevant. Everyone accepted stable coins as a serious means of payment.

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And the discussion really turns more into how do I get started? And it's no longer about convincing all the customers. It's more or less providing a helping hand to get started, to put all these puzzle pieces that we just talked about together. So it's really about getting started. And yeah, this is definitely evolving forward. It's more or less approaching all these

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these operational challenges rather than still convincing each and every stakeholder and so on. So that's clear. And also the companies I was talking to face some peer pressure in the meantime, even because if let's say a company like PayPal integrates stable coins in all of their business verticals, that also raises some, I would say peer pressure. Why I, or why is your company not that fast? Why is your company not that

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cheap or efficient or whatever your competitors are. And this will be, according to my personal opinion, just a matter of time when we see that uh stable coin efficiencies raise more more peer pressure across different businesses. So that's a framework I keep coming back to when I think about this space. It's a Choffrey Moore's Crossing the Chasm, which describes the gap between early adopters who are fundamentally

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risk tolerant experimenters at the early majority who need something proven, complete and integrated before they commit. So enterprise blockchain adoption has been stuck in that chasm for the better part of a decade now, I think. And I think what you're describing, this multi-layered challenge of reconciliation, custody, internal alignment, regulatory fit is precisely why. It's not one problem.

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six problems that all have to be solved simultaneously. here's what I think has changed by now. So the infrastructure on both sides of the chasm has now reached a level of maturity where the bridge can actually be built. The question is whether the industry builds the right bridge or keeps building better trampolines and hoping companies will then jump. So do you think the industry has fully understood what the

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that bridge needs to look like and specifically when a corporate treasury team actually tries to execute a stable coin payment today, where does the process break down, technically speaking? So we see a lot of experiments round about tokenized cash, on-chain finance. That works perfectly fine, but often enough happens inside of, let's say, silos. It's built next to all.

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the payment processes larger enterprises have established. think it's Siemens, Evonik and a couple of other large companies that do quite a lot of innovation and that is really nice to see. But I think it's not yet integrated into their core finance. So it's still separate, still silo and to make it really scale, it needs to be integrated on eye level with the traditional finance.

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Yeah, this is where let's say SAP and the Digital Currency Hub is focusing on that. We really integrate these stable coins on high level with traditional finance in all the core finance processes, in the payment run, in the account statements, reconciliation and all that audit trail and so on, what you just mentioned. So I want to make sure our listeners who include architects and IT professionals get a key picture of where the architecture breaks down.

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Are we talking about something at the API integration layer, at the data model level, the way an ERP represents a payment instrument? Is it a custody abstraction problem? Or is it actually more conceptual than that, that the payment processing model in a traditional ERP was designed around batch settlement and banking cutoff times and blockchains real time 24-7 finality doesn't just improve that model, it fundamentally contradicts it.

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Yeah, exactly. it's the, let's say compatibility is seamless integration. And uh for instance, usually the payment run integrates with the traditional bank. And that normally happens with a bank file, usually in ISO standardized payment instructions. And as of now, none of these, uh let's say crypto companies support such kind of traditional finance.

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and also for account statements. you just, you still need to do all that reconciliation manually or ask a system integrator to build something custom for you in between. Also with the custodian, these challenges, these, you need to have that, first of all, this trusted custody institution. In the U S we see quite a lot of qualified custodians, Coinbase for instance, as

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one of the most recognized ones or most known ones. but that's not everywhere the case in the U.S. We see these great custodians, but there are also quite a lot of regions on the planet where you don't have a uh proper regulation that gives you really the guard rails that you can use a stable coins. it's from an architecture perspective.

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that we don't have a standardized integration model to custodians. It's the missing integration into the enterprise software. And uh I think these are the key aspects of why these puzzle pieces don't fit together. It's a lack of standardization. And even let's say cryptocurrency symbols and standards are just about

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getting standardized with the digital token identifier foundation. It's just one of the examples that still need to be established to be really on eye level with the traditional finance. that is from a technical perspective, API standards, open authentication, for instance, OAuth is a really good way for doing authentication and authorization in the internet on HTTP.

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but there is no such kind of standardization for stablecoin payments. So there is still a lot of standardization to be done for integration purposes with the custodians, for instance, for standardizing stablecoin symbols like the digital token identifier foundation, which is standardizing it. So all of these, let's say small pieces need to be in place to make it really end to end usable for the larger enterprises and not to forget about

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the audit firms like Ernest & Young and other companies need to have their audit services adjusted to stable coins, which is also still work in progress, I would say. Yeah. Thank you for outlining these challenges, for explaining the chasm and why the middle is overwrought, if you will. So what I'm definitely going to take with me

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is aspects like a disconnect between blockchain wallet abstractions and ERP payment orders, the absence of deterministic reconciliation between on-chain transaction hashes and internal payment references, or the challenge of managing custody in an enterprise controls environment. But first and foremost, really the lack of native stablecoin support in standard ERP payment engines that

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most, if not all companies simply use for their payment processing. So I now want to shift to something I find genuinely fascinating, the behavioral and organizational differences between the companies that have already started adopting stablecoin payments and the much larger group that will eventually follow them. Because I think understanding that gap is essential to understanding what needs to be built. Stefan, in your work,

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you're engaging with companies across the full adoption spectrum. So what does an early adopter actually look like in practice? What kind of company, what use case, what were they willing to tolerate to get there? So innovators typically look for challenges or not for challenges, for opportunities to become a thought leader, to differentiate themselves from, let's say the majority.

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They usually are very tax-savvy. They spend time in their private life with these innovative things. And it's absolutely okay for them that they don't have, let's say, a handbook written like the ones for products that exist for decades. So that's absolutely okay for them. these innovators, also are providing very important feedback.

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And because they're very close to the technology, they provide really good feedback, in fact. And the more and more it gets adopted into, let's say, core enterprise frameworks, the audience typically is changing. So we see then more and more treasury.

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colleagues joining that discussion and also these projects became or becoming much bigger. And then you're back in a situation where you have a lot of feedback and requirements from a lot of different departments and then it starts getting big. And then you need to address a lot of technical questions, process questions, compliant questions.

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And so on, and this is where innovators and let's say the mainstream adopters come together in large companies because that happens inside of a large company. You have always some innovative colleagues, some enthusiasts in these companies and they often enough drive that, let's say stable coin adoption internally.

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And then you have that chasm inside that particular company. This is also quite interesting to see. This is really the status quo. to say, we're talking about stablecoins with a lot of customers and we're getting started with a lot of projects in parallel at the moment. So it is, it became serious and yeah, then it's, it's, it's getting serious by

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by raising all these or answering all these questions around about processes and integration and so on. Yeah. Appreciate you adding this nuance on the individual level within any given organization that is even within an early adopter organization, there might be front runners and then laggards that need to cross a chasm between themselves. Yeah, that's, that's absolutely true. But if you're all, you can be a very small company and much more agile and open.

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to embrace stable coins than such large companies because you have also don't or not so many obligations to fulfill. You have not so many levels of management tiers and so on that you need to convince. So decision-making is usually way faster in smaller companies. And this is why we currently also see smaller companies taking the lead in adoption.

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We also see the larger companies adopting stablecoins, it will still take a bit until all these projects will hopefully come to success. Staying on the organization level now, so early adopter organizations, in my experience, large multinational or tech-forward corporates are these early adopters. So there are specific use cases like cross-border B2P payments to reduce

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for exchange, friction and correspondent banking costs, intra-company cash repatriation from markets with currency controls or weak banking infrastructure or supply chain payments where settlement speed has working capital implications. And what I observe is a willingness to build custom integrations and accept some manual reconciliation processes. But then now moving to the individual level, there's often

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an effort driven by a single internal champion, often a forward thinking CFO or head of treasury transformation. So is this attempt in describing early adopter organizations fair? Exactly. So for instance, I was talking to a customer in Switzerland and they so far had a traditional licensing model for their software. it's, I'm talking about a software company. It's a small software company providing add ons.

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to SAP solutions. And they had the traditional licensing model where a customer bought a license and paid on an annual basis for that. But they turned their product into a SaaS product, which is subscription-based billing on a monthly basis. So the invoice amounts are way smaller than they had been before. And the payment cadence is much higher than it was before.

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and they even sold their product to Latin America or to Africa. And what this customer told us was that this could be even a showstopper for them because the African customers or Latin American customers sometimes pay 20 to \$30 in transaction costs for that \$50 invoice. And this could be

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even a showstopper for them, just because the payment rail is not efficient enough. And then they had a really forward looking CEO that was very interested in using stable coins and also Bitcoin. And this can be then the kind of thought leadership and proof of concept that you really need to show that it really works in everyday payment processes.

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Yeah, that matches exactly what I've observed. The early adopters are almost always pulled in by a very specific quantifiable pain point. It's not a vision, but a problem they can no longer afford to ignore. And in the European context, that pain point is often cross border payments into and out of markets where traditional correspondent banking is expensive, slow or simply unreliable.

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Spoken to European companies with operations in Latin America or sub-Saharan Africa, where the cost of moving money through traditional race is so significant that a stable coin

solution, even one that requires significant internal effort to implement has a clear and immediate business case. But here's a tension I observe. It's the delayed maturity,

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thousands of European mid-market companies that will eventually need to make this transition. They can't operate the way early adopters do. They don't have a crypto native IT team. They don't have someone who understands the difference between a hot and a cold wallet and they shouldn't need to. So here's my question. Is the leap from early adopter solution to something the late majority can use?

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primarily a product design challenge? Is it a process design challenge or something more fundamental? Because my intuition is that the late maturity doesn't just need a better version of what early adopters build. They need something that feels like it was always there in their SAP system. No new mental models, no new workflows, just payments that happen to settle on a blockchain. Yes, exactly. From a web3

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startup perspective, always the stable coin is the product and the innovator customers will buy that stable coin techie product. But the majority is buying a payment solution that works end to end. And it really needs to be seamlessly integrated into the software that they are used to. They don't want to have the silo for stable coins in parallel to traditional finance.

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And this cannot be solved by, let's say, a tech only product, but really by seamless integration, let's say through standardization, seamless integration. that needs, yeah, standardization is probably the key word for it. So there's something almost paradoxical about mass adoption of blockchain technology and stablecoin payments.

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in the enterprise context. The early adopters we talked about those multinationals with front running thought leading CEOs or CFOs. So those early adopters already proved or in the process of proving the concept, but the conceptual framework they used to get there thinking about wallets, about gas fees, about private keys, about on-chain versus off-chain state. That framework is actually a barrier to the next wave of adoption.

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The late majority of adopters doesn't want to be educated about blockchain. They want their existing processes to work better. The technology needs to become invisible. Do you think the industry has truly internalized that or are we still broadly speaking building tools that require users to think at least a little bit like crypto natives? Yeah, I think that's exactly the point. So these

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Does the knowledge about cryptocurrencies and stablecoins need to be, let's say, hidden as much as possible and all these disruptive aspects of stablecoins like the addresses and so on? I mean, you, for instance, know your counterparty, you know the legal identifier, for instance, and the system need to take care of messaging the addresses, suggesting you to switch to a faster and cheaper payment rail.

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but you don't need or you should not need to go through all these, let's say smart contract addresses and all that, but it needs to be really integrated end to end. And that also includes probably your house bank. So we see a lot of traditional banks supporting cryptocurrencies in Germany at least. And that also can be leveraged for stable coin mass adoption in the business context.

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we see quite a lot of adoption of cryptocurrencies, but mainly by private persons for speculative reasons, by investment companies that say invest a bit into Bitcoin, a percentage or something. uh But having your house bank supporting stable coins can be also a very important key point for the business adoption of stable coins because all these mid-market customers, know they're banking

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contact persons probably since decades. And they don't put the relationship to these trusted contact persons and the banks at risk just for being a bit faster or slower. So I think for mass adoption, we definitely need the house banks to support the stable coins that the companies can use stable coins from where they are today that they don't need to move.

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to a different custodian, but the stable coins are becoming available at the house bank. Then the enterprise software on the other hand, on the upstream side, so to say, need to support it. Then probably advisory firms around these mid-market companies need to be educated all around. And these are, let's say, the things that need to change for mass adoption. These things that you usually would hide in a

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advanced settings environment for some tech savvy people and stable coin and blockchain details would be the advanced advanced settings probably that you never want to open, but trust the systems that you use. And this is the level of convenience and trust we need to have getting the people on board from where they are today.

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Thank you, Stefan. So we spent a fair amount of time on the very challenge, the problem space on what that chasm is and why crossing it is that challenging. Let's now move to architecture as a potential missing link. So to solution SAP's approach for crossing that chasm and the road ahead. Yeah, and let me come to what I...

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believe is an underrated topic in the entire institutional digital money conversation. And that's the IT architecture layer. I've been calling it a sleeper topic and I want to explain what I mean by that. So at conferences, in panels, in round tables, the conversation is often about regulation, about liquidity, about whether Circle or JP Morgan will dominate the stable coin market. Almost nobody is talking about the ERP.

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integration layer. And I think that in five years, when we look back at how stable coins actually crossed the chasm, it's going to be obvious that the architecture question was where the battle was then actually won or lost in everyday organizational operations. Stefan, help me make that concrete for our listeners. What does well architected stable coin integration into

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an enterprise financial system actually look like, not the aspirational vision, but really the technical and functional architecture that makes it work for a company doing genuine B2B payments at scale. That starts, I would say with the cash positions or the treasury overview or the cash overview in the enterprise software or in the ERP system. And the treasury department, work on a daily basis, of course, in their

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treasury module and they see their cash forecast and all that. And it starts with integrating stable coins where the treasury departments work today. And what the SAP Digital Currency Hub is doing is integrating the stable coin and the stable coin custodian in a

seamless way. And the exact same way how a traditional finance institution is integrated. So you see your US dollar holdings.

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next to your USDC holdings or your PayPal USD holdings at a Coinbase, for instance. And that is where things get started. And then you have your, let's say, stable coin payment method. So it doesn't need to be a different currency because the stable coins are packed to the US dollar, everyone trusts or to the European Euro. And this is why

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The currency must not change, but only the payment method. And next to that is the payment run at the moment. Company typically receives all the invoices, either electronically or on paper, and then they will be scanned and they will be put all together in a very large payment run. let's say at the end of a month or whatever period.

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company or particular larger companies, they pay thousands of invoices in one shot. And uh this kind of integration is where you need to integrate with the stable coin to really make it a scale across all the business verticals. Because if, regardless of whether you do some travel and expense payments or supplier payments,

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employee bonus payments or whatever typically that is routed or funneled into the enterprise software. And then you have these, let's say larger payment runs or batches. And this is, this is where the magic happens. This is where really a lot of money is being transferred. And let's assume that I as a supplier or the system can suggest to switch to a stable coin payment because

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The counterparty is known. I know the legal entity identified Duns and Bradford number or whatever of my counterparty. And then the system could decide on its own that doing the stablecoin payment is more efficient. And if there would be an interoperability protocol for enterprise software systems, for instance, or an agent-based solution that these agents or systems can exchange the addresses where you would like to get paid on.

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exchange in a trusted and secure way, then it could really scale in a way that is currently not possible because we see a lot of manual efforts and manual processes and isolated solutions. And this level of integration is needed and that requires, I would say standardization and common protocols like X 402 for agent-based payments.

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And yeah, this is really where it needs to be integrated. Payment run, for instance, the account statements, because so far you receive, let's say a payment manually at Coinbase or wherever, then you need to reconcile that manually against your open positions in the ERP system, because there is a disconnect and there is no way to report your incoming blockchain transactions, let's say from

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MetaMask in the worst case, from an enterprise perspective into your enterprise software. Someone needs to monitor that MetaMask wallet and need to close the open positions manually in the ERP system by providing manual input. And all that is very failure prone and not really secure from a process perspective. can happen a lot of fraud and manipulation in between. And all these processes need to be automated and standardized across companies.

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boundaries that ideally systems or agents can negotiate on these payment terms automatically that you as an accountant don't need to spend much attention to that because they can provide you a discount for instance, if you use a stablecoin payment over a fiat payment and so on. is just less money on the move, I would say, because usually a payment takes two or three days. So the working capital efficiency can be improved.

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for all kind of companies, I would say. So you're here giving a sketch of a well architected stablecoin integration into an enterprise financial system. What's striking to me about this uh draft architecture, if you will, you're describing is that it faces two directions simultaneously looking outward.

46:09

the blockchain ecosystem it has to be flexible enough to work with Circos USDC with bank issued stablecoins potentially one day with a digital euro if the ECB actually gets there and ideally without the company having to re-architect everything every time a new asset or a new provider emerges and then looking inward secondly toward the enterprise it has to integrate so seamlessly with existing ERP processes that

46:38

the people executing payments never have to interact with the blockchain layer directly. That is genuinely a hard architectural problem to solve. So ERP vendors in general and our team at SAP has been working on exactly this problem through the digital currency hub. And I know you've been doing hands-on workshops with custodians, exchanges, stablecoin issuers, partners and

47:07

predominantly customers. So without turning this into a product presentation, what are the architectural principles that emerged from that work and what surprised you along the way? So after a couple of customer workshops, it became very clear to us that we need to have something like a banking proxy in between the enterprise software and the very rapidly evolving web3 environment because at the, let's say,

47:36

ERP system innovation takes way more time than you would be able to drive outside of the ERP system. So it was clear we cannot build that into the ERP system itself, but need to isolate that because just because of the crazy speed of the innovation in Web3 area. And this let's say banking proxy, the SAP Digital Currency Hub is mimicking what a traditional

48:06

bank does against the enterprise software and translates that into the blockchain language. So it's the bridge between web three and the enterprise world. that let's say a proxy architecture model outside of the enterprise software, I think was really outstanding and uh very unique so far. Yeah. So the principle you're really describing here.

48:34

it would then be labeled or called like mimic an intermediary bank, which is not an intermediary because it's a piece of software, which is a beautiful way of crossing the chasm or bridging the on-chain and off-chain worlds that you use software to mimic a role on intermediary that was previously enacted by a traditional bank. And this job is now being done by a software. Correct.

49:01

Streamlining, would say all kinds of different custody integrations from large to small, from niche to mainstream, from stable coin to tokenized cash or whatever. Everything gets streamlined into a unified traditional banking interface and that works perfectly fine. So you don't need to really invest a lot into integration products. It's rather just configuring your preferred custodian and

49:31

then it's ready to go out of the box. Yeah, let me ask something more speculative because I think our listeners appreciate when we push beyond the present state into where this actually is heading. If you look at the ecosystem we sketched at the beginning of our conversation, so the traditional bank stablecoin rails, the native crypto infrastructure, the corporate coins, the tokenized RWAs, and you imagine all of that maturing and converging over the next three to five years. What?

50:01

Thus enterprise digital money architecture look like at the other end of that journey. Are we moving toward a world where companies have one unified integration layer that abstracts away the complexity of multiple stablecoin networks and asset types, or is fragmentation really the long-term reality? And if so, how does the CFO navigate all of that? I think the fragmentation

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would be a no-go in the mid to long term because of that additional level of complexity. What we hear today is that companies struggle with all these banking integrations. They have to maintain, for instance, or assume that you're a multinational company, then you might have 10, 50, or even a hundred, I heard from customers that have 120 banking integrations across the globe. And this is

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of course, something that you would not like to replicate in the Web3 environment or stablecoin space. I think the key value proposition of stablecoins and Web3 based products need to be a simplification, a streamlined infrastructure. And therefore I don't think that fragmentation is acceptable. Not from a... uh

51:27

pure technical perspective, but also from a stable coin perspective, we see more more stable coins coming up. But this fragmentation of liquidity is also something that customers that we talk to don't like too much. In the end, it will have to be like the cell phone, smartphone market. You see Samsung, for instance, and Apple being dominating the market, but there are way more brands around.

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seriously, it's two or three that will dominate the market and we will probably see something like was in the stablecoin space. So also that fragmentation will probably sort out because it's also hard from a, let's say from a differentiation perspective for a stablecoin because they are usually standardized around year C20. So it's hard for them to differentiate and also from a

52:25

from a yield perspective in the US and also in Europe, it's always forbidden to provide yields to the holders of the stablecoins. Also, is not much of an option to differentiate. And this is why we believe that the fragmentation will need to be prevented. All right. So I want to now close with something that I think puts the scale of our whole conversation in perspective.

52:55

SAP system run the financial operations of a significant portion of the global economy from mid-sized European manufacturers to really global multinationals. The aggregate volume of value flowing through SAP's payment and treasury modules is extraordinary. And what that means is that getting the architecture right for stablecoin integration into that ecosystem is potentially a structural shift into

53:23

how global B2B commerce settles value. So the stakes are generally high in crossing that chasm in what SAP or ERP vendors in general do to cross that chasm. So Stefan, final question from my end. For the finance professionals, the IT architects and the treasury leaders listening to this today, what's the one thing you'd want them to walk away with? So,

53:51

not a technology recommendation or a product pitch, but a mind shift or an action that would make the biggest difference for them in how they approach this space. Yeah. Get started small, probably with a use case like intra-company repatriation, because then you don't need to convince a supplier. So you can get started with that on your own and just doing it intra-company. Let's say if you have multiple subsidiaries, you can move money around the globe.

54:19

within your financial department, that would be a really great starting point. And once you're, let's say, uh familiarized with all of that, then you can expand that to further use cases like your investments. So you could, let's say, invest a bit into tokenized money market funds or even cryptocurrencies. And this would be something that at least I would appreciate if we see more innovators joining the stable coin.

54:49

adoption, make it real, make it happen, convince treasury departments, convince counterparties to accept stable coins, keep stable coins in circulation, plan ahead of that, see that more from a holistic perspective, make your department or your treasury department ready for the decentralized economy. Oh, that was a bunch. Thank you so much for these pragmatic recommendations on how to cross that chasm. Yeah. So

55:15

as referred to a lot in this episode. The title of the very episode is Crossing the Chasm, How Architecture Unlocks Stablecoin Adoption. And I think we've shown that the chasm is real, but it is crossable. The stablecoin infrastructure on both sides of the ecosystem has matured to the point where genuine enterprise adoption is now a technical and organizational challenge. It's not a technology readiness question, at least not anymore.

55:45

And the companies that invest in getting their architecture right in the next two to three years, choosing integration layers that abstract away blockchain complexity that fits seamlessly into the existing ERP workflows and that are built for regulatory compliance from the ground up. Those companies will have a genuine structural advantage in how they move, settle and manage value in an increasingly digital global economy. The architecture question is the sleeper topic to me.

56:15

And I think after today's conversation, it won't be sleeping for much longer. Thanks for listening to Bitcoin Fiat and Rock and Roll and for making it until the end of this episode. Thanks to all the co-hosts and the excellent guests like Stefan Arnold for their takes and insights. If you enjoyed the podcast, please recommend and rate us. That helps us the most. Connect with us on YouTube, LinkedIn and our expert community on Telegram, both in German and English.

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for details, consult the show notes. Stefan, by the way, you are invited to join this very expert community to then face all the questions that will naturally emerge. And to our audience, visit our website for detailed analysis and detailed show notes. Make sure to subscribe to BFRR wherever you get your podcasts and join us next week when we be exploring another critical development in the evolution of digital finance. Until then.

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Note: This transcript is an AI translation from the English Audio.



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