# CYBERSECURITY IN WEB3

# VIDEO TRANSCRIPT

**Matthias Niehoff** [00:00:08] Good morning, everybody. It's great to be here, a big honor. We want to talk today about cyber security in Web3. Maybe a brief introduction of the people you see here on stage. My name is Matthias Niehoff. I'm a senior manager at Accenture Strategy, and I have the honor to host this panel today. The first guest here on stage. We are very honored that you are here. Marina Khaustova, the CEO of Crystal Blockchain, with more than 12 years of entrepreneurial experience and providing with crystal blockchain a blockchain-based analytics tool for central as well as decentral entities. Marina, it's great to have you on stage. Thank you very much for coming. And next to me, Hartmut Mueller, the Chief Transformation Officer of ServiceNow and formerly CTO of Mercedes-Benz - one of the leading experts in Web3. And we are very honored to have you here. Thank you very much.

**Hartmut Mueller** [00:01:16] Thanks for having me.

**Matthias Niehoff** [00:01:19] So let's kick this off. Cybersecurity is obviously a big topic in today's Web2, already. And we want to use the chance here today to discuss special requirements and specifics we need to consider when we talk about Web3. Let's start easy, because many people are still talking about the metaverse. This is one of the most well-known parts of DLT, of blockchain and the Web3. So, Hartmut, first question to you: Where do you see specific requirements when we talk about cybersecurity in the metaverse?

**Hartmut Mueller** [00:02:00] Yeah, thanks for the question. I think it's about if you extend the physical world with the virtual world, and especially when we are looking into what I always say, is that from a B2B perspective the most relevant topic, is the industrial metaverse where you are talking "digital twins". Where you are talking "digital twins of cars", "digital twins of factories", for instance, and also "digital twins of warehouses". And even if you are having that and extending also the physical world, it's rather like you are having a "digital end point" so to say, you know. From a technology point of view, from the fundamental point of view and then looking into security, it's the same what you need in the Web2 world, you know, you have to have the right identity access management, for instance, you have to have the right endpoint protection to a certain extent and bringing these elements together. I think it's quite interesting to see how an overall enterprise architecture is handling that. And of course then I think that's very important because software and hardware are accelerating with a different speed, you know, and especially human capabilities when you look at it are also far behind. You have to bring this together. So it's a convergence out of virtual and physical work today.

**Matthias Niehoff** [00:03:18] Marina: Security is one of the key features of any blockchain due to its decentralized set-up. From your experience, where do you see the big challenges of cybersecurity and distributed ledger technology?

**Marina Khaustova** [00:03:36] Well, it's obvious that, you know, decentralized technologies, they were invented to actually fight fraud and to bring

in transparency. And it may sound, paradoxically, that, you know, it opens up the avenue for the fraudsters of all kinds, including, again, metaverse. And we see, again, many, many examples of that. But to me, you know, from my understanding, it's a natural flow of things because, you know, you are having a new technology, particularly that opens some opportunities in the financial segment. And this opportunity, of course, is getting abused from all kinds of bad actors for trying to get advantage of a new unregulated space. That's a normal phase that, you know, the industry is going through. And luckily, we see this phase, you know, coming to an end because this transparency becomes and we are using it for good and we are using it right, right now. Nevertheless, a lot of examples right now that, you know, you should not be taking these issues of security lightly, particularly in metaverse, the question of impersonation. Which is being employed in many, many cases, many examples. It is still real that, you know, people are creating metaverses, then selling tokens as an access to that and then just disrupting the whole thing, leaving, you know, investors dry. And there is nothing and it's still a very, you know, prevalent thing, particularly in the APAC region. And, you know, I started speaking about borders and about country, but metaverse is borderless. Right. When you're entering a space which technically resembles, you know, the real life in a digital world, what can you say about the borders, what we can see about, you know, privacy measures, you know, that can be deployed. It's not something, you know, which can be enforced lightly in this should be thought out thoroughly. So, yeah, again, in this particular space, we see a lot of troubles right now and broader application, you know, for businesses that also poses a lot of questions, and it calls for a better understanding of what is possible right now. 51% of attacks, right, happen when the governance wasn't thought well through and when, you know, a malicious group of, you know, actors take over the whole thing, that's still, you know, happening right now.

Right? Wrongly selected protocols, which again, there was no time, you know, proper time devoted when during the development phase to the security measures and just other, you know, players just picking up this technology and building their businesses on that and then again, losing that, that's also not a small thing right now. And yeah, all kinds of impersonation, you know, wrongly issued certificates of authenticity for arts we see all kinds of that happening right now. And luckily, we have tools right now to discover that and try that.

**Hartmut Mueller** [00:06:27] Maybe let me add one thing to that, and I think it's very important also when you look from a B2B perspective on it and it doesn't matter whether you create your metaverse completely separate from your original business. Yeah or whether it's quite included. Data privacy and data security is the key actually also for the trust towards the customer. Yeah, and I think that's very important actually and that means as well that you have to have the right policies, that you have to have the right governance also applied and I think also when you look to the overarching topic of Web3 and blockchain, it's very relevant that we are going into this a there's a policy for doing it because that helps also the broader community to apply it, you know, and to create it and introduce it to companies and also to special business models.

**Marina Khaustova** [00:07:13] Now, that's for sure like investing a lot at the very beginning, you know, and spending more time, more efforts and thinking that through definitely pays back because again, trust is very important and that's what you build from the very beginning. And yeah, I'm not saying that any new product, you know, freshly established product is wrong by design, you know, but definitely we see some players who have invested years already over a decade in building that having, you know, very right direction too and keeping security as a priority yet.

**Matthias Niehoff** [00:07:45] Right. Marina, let's talk a little bit about your company, about crystal blockchain. So, as I said in the beginning, you

are providing blockchain-based analytics tools. Can you share some details around that? So, what are your measures you are taking to kind of prevent and preserve from threats?

**Marina Khaustova** [00:08:05] Yeah, of course. You know, Crystal Blockchain is a blockchain analytics company. We are monitoring the space transactions and we can understand how digital assets are changing owners and what's going on with digital assets over the course of their life. So that actually powers many, many aspects of companies dealing with digital assets, including compliance or investigative capacities. And I must say that back in 2018 when we started, this space was very different from what we see right now. Back in the days, these tools were employed only by enthusiasts who actually expected regulation to come in, who understood that trust will be actually critical, and it were rare people, rare companies, I tell you. And then we saw, of course, 2019, 2020 so-called crypto winter. You know, a lot of these one-day companies have been washed out from the market and only those who actually understood the power of regulation stood, still. And the regulators started, you know, looking very closely at this space. So, monitoring the space of the digital assets and how they move became critical and very essential for the space and for the for the industry's development further on. And now 2023 after last year, maybe some of you remember or heard about what was happening with the FTX, the exchange that actually crashed and caused the crash of many other businesses. And we still see a huge impact, you know, on the whole industry from that event. Technically, the most important, the most frequent question that I had over the course of this year, could we prevent this case if we looked at your data, you know, if we were interested to find out what was going on. And the answer is yes. So right now, this space of analyzing how blockchain transactions are happening, how assets are moving, it actually gives you an

opportunity to not only deal with the consequences of something really bad that has happened you know, but it actually arms you to prevent something really bad from happening, it actually allows you to step in very early in the incidents to understand, again, when you're observing a bridge or a particular protocol and you can train A.I. to actually monitor all the movements. And when these odd movements is happening, you can react to that you can protect your own business by acting. You don't need to wait, you know, while someone confirms on Twitter that, yes, we have been hacked, you see these immediately and you're able to again do deploy some actions. And I see a lot of power in that. And this shift from being reactive to being proactive is the challenge and the opportunity at the same time for us.

**Hartmut Mueller** [00:10:49] Pro-activeness is very important, actually.

**Matthias Niehoff** [00:10:53] Um, Hartmut, let's also talk a little bit about the corporate perspective on this. I mean, in your current role as Chief Transformation Officer at ServiceNow, but especially also as CTO of Daimler, what would you recommend to corporations to take measures with regards to cyber security in the Web3?

**Hartmut Mueller** [00:11:16] I think many things are relevant for this and the first thing you have to say is Web3 part of your value chain, you know of the overall value chain. Will it be embedded so-called as a "Träger-Technologie", foundational technology in what you are doing from a corporate point of view. So, if you have that and I think we've seen a lot of stuff today where companies have started with NFT, digital art, and it was more a side thing, you know, building communities and then linking the stuff backwards, towards the original value chain, the origin of product. And I think it's very important when you are saying it's part of your foundation and if you really, I would say see that it is a really decentralized technology which especially goes into how data is handled and how you can create additional business models for the data, you know. I think then it is a true endpoint and

it's a true data topic and also a true security topic. Then you have to treat it, I would say the same way you treat also Web2 stuff, so that means you have to be very careful, for instance, if IT is attacked and it goes into ledger and moves towards OT, you know it is converging towards it because you are talking when you are talking about a car, for instance, it's about a digital endpoint you are having, you know, and if you think that backwards, it's like a huge network and you have to protect the digital endpoint and the data within the digital endpoint in the same way like you protect data in a HR system, for instance, I think these things are now coming together so that I'm saying it is converging and not only IT and OT is also converging, let's say the digital and the physical world. And therefore, you have to think it like that and then you can you apply sometimes same measures to what you have already applied to your Web2 environment.

**Marina Khaustova** [00:13:06] Yeah and I believe that you are becoming, you know, very you're taking on a lot of responsibility because the end users are trusting you to select right technology, again, right combination of the technologies that you use.

**Hartmut Mueller** [00:13:18] Yeah, I think it's also, you know, when you look to that for instance, like blockchain - blockchain of course, can help you when you want to create traceability about your overall value chain, you know, so that means and that I think is very important, that is trustworthy because, you know, I had yesterday a discussion about sustainability and ESG, you know, and also, of course, security paid in, but Web3 paid into that and you can leverage that technology, of course, for that to your entire value chain, to your suppliers which are, whatever, globally around the world. And then it's even more mature compared to if someone is doing, whatever, self-certification, things like that.

**Matthias Niehoff** [00:13:55] That's a very good point and still many people know blockchain from the cryptocurrencies, right?

Everybody is talking about this. So, there is of course lots of discussion in the media, there is some fraud, people are saying this is not controllable, this is even financing terrorists, right? So all these all these discussions we read in our daily newspapers. Marina, from your current perspective, from crystal blockchain, what's your take in this? Do you see this as a as an exciting new era or do you see this as a very dangerous field?

**Marina Khaustova** [00:14:35] Well, I'll be transparent upfront, all these gloomy things they really happen, but they also happen with the traditional cash. And if you compare what's going on, on blockchain, what we discover, what we can see, if you compare all these bad things, you know, to what we saw with the traditional cash, it's incomparable. The magnitudes are just astonishing and the fact that it's brought to our attention that causes a very like, funny paradox because, you know, these cases of fraud or like funding terrorists or like sanction evasion, they become visible because they're using a technology that makes them visible, but at the same time you know, the media amplifies this enormously and says, look what's going on what has been discovered. It's good that we discovered that because if it was happening in cash, we couldn't know about that. So, yeah, I think it's an important point right now, and I think the majority of people understands that and the governments as well. And I think we're beyond these moments, fortunately, when actually countries were making very abrupt decisions to ban cryptocurrencies and we saw this, in fact, South Korea has a particular specifics and feature. Local people are very prone to various kind of social engineering, you know, based scams. So bad actors were very, very much active in this space so they had to actually ban crypto for almost two years. And China with the miners, you obviously heard about these cases as well. So, these were extreme cases. I think they're in the past right now and everyone is, you know, understanding, you know, the important feature of transparency that comes along with this technology. And someone may tell me, okay, what about privacy coins? Privacy

coins that are designed to, you know, obscure, to obfuscate the path of those who are using that? Well, privacy coins are not something that is powered by the adoption of the financial institutions right now and we see, again, cryptocurrency space right now very much powered by larger banks adopting the technology moving forward. They're not interested in, you know, these kind of like marginal cases at this moment. They're interested to power out the transparency and to employ this as much as possible. Yeah, so that's what I see.

**Hartmut Mueller** [00:16:57] Maybe let me add one thing, and I'm interested also in your opinion, you know, I think when you look to the overall Web3 thing and also security, and I think we have to really be clear on that trust, is the ultimate currency, I would call it. Now, the old economy is moving to debt, yeah which for sure will help you know, it's very old corporates, I would say, are moving into the new economy, adopting also Web3 and business models around it, will help but also the startups, you know so to say because you know and it's human nature saying am I trusting that new startup or am I trusted that whatever 135 year old legacy company because they are now into that. And I think that we have always to acknowledge and that's why I'm saying it's rather also a convergence and that's why it's the beauty also of sometimes having from a corporate, a startup ecosystem which you are building in into your corporate business domains and it helps, you know, I think that that's what I want to add to that, what you said, because it's, of course, trust and data privacy and what technology from a technology point of view is feasible, but it's still in the head of the people, am I trusting whatever this wallet is and then I'm moving my money towards that, or is it rather better going with the corporate, you know, and startup aside.

**Matthias Niehoff** [00:18:18] Let's talk a little bit about automotive, Hartmut, we share the excitement around the automotive and cars, and we launched this study together last year with our partner Blockwall, where we actually found that especially for automotive there's exciting use cases around blockchain, when we think about autonomous driving - that is probably the most the most popular one. From your perspective, what's the most relevant topics, what automotive OEMs should keep in mind when you think about the Web3 era?

**Hartmut Mueller** [00:18:56] Let me let me explain maybe two examples. One is when we are looking inside out. So first, it's about where are the huge cost levers, so to say, in an automotive company, you know, and it's about ramping up new cars, it's about developing new cars and it's about producing then of course, these new cars. So that means one internal fuel you are having is completely industrial metaverse, which I mentioned, you know, and if you can; and if you would say you can get a virtual and a digital twin of a car which is driving into a virtual factory and telling the virtual factory how to adjust, and this virtual car is driving into a virtual warehouse and telling the warehouse how to adjust actually, you can save three digit millions, you know, so and that's why that's one thing, you know, where you are going in. The second thing is when you are looking outside in and saying, okay, what is actually the car getting going forward? It is a digital end point, you know, and this digital end point, also, assuming that it will be autonomous to a certain extent, has to communicate trustworthy with the outside world, so that vehicle-to-x communication which has to happen towards infrastructure, towards other digital endpoints. And I think that on the one side has a huge security and data privacy relevance. On the other hand side, you can of course assume that you can run a lot of service business underneath you know, if you get that incorporated in your car, assuming that a car is fully immersive, if you are not taking care on the steering wheel anymore and you are having services which are connected towards the car or even if you are driving by, you are having a service, then you can fully leverage also smart contracts and whatever which are in the technology to a full extent.

**Matthias Niehoff** [00:20:43] Then maybe one more question in this regard, yeah, the study also found an innovation dilemma a little bit for big corporations because they kind of go for incremental innovation instead of this "big bang - we stop everything we do today and we go fully decentralized". So, where do you see the big hurdles of corporations today in implementing.

**Hartmut Mueller** [00:21:09] It's two things, actually. One thing is, of course, how you are trained and educate your people and whether you are giving them the freedom to experiment in a certain way, you know, it's not about saying, okay, does this small startup, we have founded a small company, you know, and in the company will do that new fancy stuff and the rest will go on as it is. Now, it's about really bringing these worlds together and fueling in the knowledge into the existing teams, that's one thing, you know, and how to build up knowledge so that first, from a technology point of view, you understand it and then you can automatically adapt it towards the use cases which you are having in your company. Second, pretty simple, is where are you allocating your capital? It's the same when you are doing investments, it's the same internally saying where are you allocating. If you are allocating it to ESG, ESG will run fast. If you are allocating it towards new technologies Web3, of course, that will push, if you are neither allocating money to these two areas, I would say it's only incremental steps you will see here. And then of course, you have to have the attitude and you have to have people who are so bold in doing disruptive steps, you know, within a corporate. So that's also, I think, very important.

**Matthias Niehoff** [00:22:19] Yeah, maybe. Marina, anything to add from your discussions with clients? What do you see as the big challenges out there in making this really a mass adoption?

**Marina Khaustova** [00:22:30] Well, I think the big challenge is, you know, to make gradual steps, but very, you know, precise step and picking up the right direction, yeah, and of course, right now I can see, I'm most exposed to like financial institutions, banks, for example, and there they have been preparing for a long time, you know, looking at this space and being not deceived by, you know, the market cycle, sort of everything just constantly developing in this space. And yeah, I think, thinking about not only about the impact, but about like how this journey is being taken and what, you know, old school environment you need to take into consideration where you're getting to this, you know, dream future, I think it's very, very critical not to make like huge steps and not to disrupt, you know, many things on the go. I think that that's the first one. And you mentioned education. Education is absolutely critical right now. It's something that I am particularly in compliance space, for example, we need to convert army of compliance officers who were used to work with the traditional assets, you know, we need to teach them now digital assets, and that's not what the small thing because this space also develops super-fast and it is just complicates and is layering out the complexity and so on. But it's possible and it requires investments from governments, from corporations and from companies, you know, who are involved into that. It's absolutely critical step with all that we wouldn't move forward.

**Matthias Niehoff** [00:23:59] So, one of the key pre-requirements for security in a decentralized ledger-world is finding the same standards, right, and there are these initiatives like Moby, like Catena-X, Gaia-X, where companies from different industries are working together to define the same set of standards as the basis for everything. Maybe Hartmut, question to you: How important do you see the work which is being done there and how well is it going these days?

**Hartmut Mueller** [00:24:33] I think it's important that we have that, and it's very important also that a common taxonomy is shared, you know, and I'm explicitly saying taxonomy, because we

have to find the same view on things which might from the beginning look different, you know, to a lot of companies which are already in there. And what they also have shared is actually that, for instance, blockchain as a technology might try different use cases towards that. And I think that's good, but it means, fully decentralized data model, you know, also means fully sovereign data and data and technology sovereign thing on the other hand side and bringing these elements together, enables new business models also on top, so that means you can create an ecosystem who is building stuff based on a certain data without accessing the data, you know, and also violating the data to a certain extent. And you share the common sense of that. So, I am saying sometimes we all saying a governance is not good and no policies, please, and no red tape, but to make it productive, to make it also that people are using it very openly, policies and especially taxonomies are not bad, you know, and even speed up and increase the speed of implementation also.

**Matthias Niehoff** [00:25:46] Now, that's a very good point. So, yeah, you just you just said it. The regulation is something that is happening in the market. You said you said this is actually something positive, right? And I think what we see in Europe is rather positive for the overall market. In the US, also, there are further suggestions on the table. How would you comment on that?

**Hartmut Mueller** [00:26:09] Yeah, it's funny actually, because when we build at Mercedes a decentralized marketplace, for instance, it was also about first, of course, how can we integrate and also take care on antitrust and all that stuff, you know, and take care of the data everyone is providing towards the marketplace. But secondly, also, when you look to the last three years, regulation kicked in very heavily from China, you know, you can't move data out of China, you know, from Asia, from the US. And, if you assume such models, you know, you are suddenly in a

decentralized world where everyone keeps his data and even as a corporate, you have to bring these data pools which are residing still in different countries or region you have to bring that together. But, if I am saying, it's not only technology, it's also about saying, how can I build a business model with that technology to overcome certain regulatory stuff or to overcome antitrust topics, for instance?

**Marina Khaustova** [00:27:04] Well, that's where privacy protocols can come in handy, all these ZK rollups and the like, you know, and it's also interesting to see privacy segment developing in support of the regulations. So, I think that's the really exciting place.

**Matthias Niehoff** [00:27:20] Maybe one last question before we then come a little bit to an outlook for the next years so. Where do you see maybe first Marina, where do you see the innovation coming from? Do you rather see it from a corporate side? Do you rather see it from a startup world, entrepreneurial spirit? Where would you say is the innovation coming for the Web3 technology?

**Marina Khaustova** [00:27:46] Well, I've been in the blockchain space since 2015, and of course, I've seen, you know, all these new exciting things emerging from nothing, you know, out of papers published anonymously on the Web and powering up, you know, great minds, collaborating together and inventing these great things, you know, which are getting adopted by people. And sometimes, of course, as a society, we go, you know, a little bit off way, like with NFTs, great technology, but everyone was very distracted by the pictures and arts and, you know, all these trading opportunities and arbitrage and everything. I'm a true believer that NFTs are designed for something else, you know, not for like exchanging pictures with each other, right. So, but what I'm saying is that corporates are, of course, employing this and helping the adoption happen, but I see that initial, you know, the most evoking the, provoking thoughts, the most provoking ideas, they were, of course, of course, built within the startups. Yeah.

**Matthias Niehoff** [00:28:52] Thank you very much. So, looking ahead a little bit, yeah. Thinking about the year 2030, what makes you most excited about the future of cybersecurity in Web3? Where do you where do you think we are in a in the year 2030 from now on?

**Marina Khaustova** [00:29:13] Well, Web3, definitely makes internet a user centric place much more than it is right now. And, of course, a lot of opportunities and a lot of risks associated with that, and I can see again, a lot of pushbacks also coming from many institutions, you know, that we know we should regulate more to protect people more, and this customer protection becomes, you know, very, very important. We were only thinking before about like investor protection, right now, we need to think about the user protection, and it's like most, yeah, because the impact of that could be huge. And it is an exciting space, it's a worrisome space, of course, but I believe that through true collaboration and thinking about how we can collaborate within this broad space of analytics, we can find a way again to create a very strong line of defense. And I'm speaking about collaboration, and it may sound very weird, but right now we don't see much of that yet. There is data which is vitally critical for every company that is dealing with the digital assets, for example, this is the data about like what kind of money should you accept or not, right? And no one should be sitting on this data because it may be something really like related to crime or something. These kinds of data should be like in this public space, it should belong, you know, to people, it should become available to all the companies. So, I'm calling for a particular example, you know, in this narrow space, but in a broader sense, I believe that it calls for a collaboration between governments, again, collaboration and think tanks, you know, for corporations, particularly about how the data will be shared. So, yeah, that's exciting, that's very exciting, yeah. I mean, I'm a true believer that this

transparency can decrease the levels of money laundering quite significantly, and that's what excites me personally very much.

**Matthias Niehoff** [00:31:04] Perfect. Thank you very much. We are running a little bit out of time. The discussion will continue actually, if you are interested to learn more about the topic at the W3 pizza stage, which is right over there. So, thank you very much to both of you as was really interesting talk and have a good day. Thank you.

**Marina Khaustova** [00:31:22] Thank you. Thank you.

**Hartmut Mueller** [00:31:23] Thank you.

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