At 12:00 am on May 3 (Beijing Time), the founder of RUFF — Roy Li joined in the global live streaming of YouTube Huobi Talk at Huobi Office, Singapore. During this live streaming, Roy Li talked about the foundation of Ruff, what indeed Ruff is doing in IoT and what solutions it has provided. Also, he answered questions from netizens about the differences between Ruff Chain and other IoT projects, amongst others.

**[https://www.youtube.com/watch?v=QYJhmqUg\_SM&list=PL1-Ogz7t--MbU3ZNDtPPmIUE1Cey0bujN](https://www.youtube.com/watch?v=QYJhmqUg_SM&list=PL1-Ogz7t--MbU3ZNDtPPmIUE1Cey0bujN" \t "https://medium.com/ruffchain/_blank)**

*Some contents of this video are below:*

*****Host: How can it be upgraded from IoT to the field of blockchain and IoT?*****

*Roy: I started Ruff in 2014, and I wanted an IoT OS at that time. In 2017, it occurred to me that, we should combine blockchain with IoT, since they share many things in common. Then, I shifted from classical PE investment to digital assets investment. I didn’t know exactly how it happened, but I really did tons of researches before I decided on it. It took us 6 months to conceptualize Ruff Chain.*

*****Host: How will you explain blockchain to a 12 year old?*****

*Roy: Blockchain is a distributed ledger, and it makes data immutable, since each node requires ledgering. If you change the data at your own node, the data at other nodes still remain tamper-free. The costs of tampering are so high that no one can tell a lie.*

*****Host: Does Ruff hope more guys can enter this field?*****

*Roy: I need an essential chain to enable our efforts on IoT OS to be applied in practice. We want coding to become easier, so that common developers and designers can develop their own apps. We’d like more developers to focus on application scenarios, instead of bottom-layer development. We’ll offer a “template” for smart contracts, so that developers can easily develop their own Dapps without knowing too much about the bottom-layer knowledge.*

*****Host: How is Ruff Chain named?*****

*Roy: The term “Ruff” originated from rules in contract bridge, meaning “playing a trump card”. I am a member of Canadian youth team of contract bridge, and a professional bridge player.*

*****Host: Then, how is bridge related to IoT or blockchain?*****

*Roy: It requires IQ to play contract bridge, so does development.*

*****Host: What products and services does Ruff provide?*****

*Roy: Our Ruff OS enable you guys to have opportunities to get involved in IoT and blockchain, and our smart contract API will make your Dapps development much easier. For example, if you’re doing a Dapp, you may build your own Token and ecosystem of another industry based on the Ruff Chain ecosystem.*

*****Host: Why should IoT be integrated with blockchain?*****

*Roy: Both technologies are difficult; their tolerances are low and barriers are high; they both need a lot of infrastructure. It’s just like cloud computing, which used to be difficult 10 years ago, but it is easy now. There’s a huge market for blockchain, but its entry is challenging. Ruff hopes that IoT can be easier, blockchain be easier, to form a decentralized network. The reason is, when all the things are combined together, it is even more difficult to develop any application. Many guys are now developing basic chain facilities, but up to now, no one has really realized them, or provided any “real” product to us. Users are also unable to evaluate the real value of use.*

*It is relatively hard to guarantee the performance of blockchain, such as P2P transfer of Ethereum. Nonetheless, we can guarantee the performance of IoT, since IoT deals more with things happening to “machines” — you need real-time computing power, short response time, and edge computing, while Ethereum does not have APIs to get all the data, which all rely on IoT.*

*Ruff OS is an open system. Ruff really knows IoT. We know how indeed smart contracts and “machines” are connected, instead of individuals. They are totally two different things.*

*For IoT, tons of machines require connection, but what comes after connection? For the time being, there are not many applications available to run those “things” well. Machines from different manufacturers or in different models have different protocols (you may understand this as “they speak different languages”). If we abstract the bottom layer, you only need to know JavaScript, and a lamp will be lit on by writing a simple code: “Turn On”. What Ruff OS does is to connect various IoT devices and equipment. Xiaomi and Philips, for instance, focus on their own ecosystems; however, cooperation of different devices may be required for individuals’ life scenarios. Then, who will develop an app to “open the door and turn on the light”? The door manufacturer or the light manufacturer? Ruff OS just emerges for this purpose.*

*****Host: Can you explain the smart contract?*****

*Roy: You may imagine your car to be “Airbnb”. When you don’t need it one day, you may rent out your car with the smart contract when it is idle, and any other can use it. IoT divides the real rights, such as the time of use and the right to use, while the blockchain may conduct data transactions.*

*****Host: Compared with other IoT projects, what is unique to Ruff?*****

*Roy: Our clients need “faster” products, and other projects need to reach the “enterprise level”. What I mean is not a demo in a lab, and that takes at least 5 years, but we’ll get it somewhere late next year.*

*****Host: What is the current price of RUFF?*****

*Roy: I don’t look at the price. I look more at the project itself. In terms of legal tender, it is roughly over twice of the issuing price; in terms of ETH, it is several times of the issuing price. When we initiated Ruff Chain, I locked the RUFF of my team. I myself will not sell my own RUFF.*

*****Host: Concerning the consensus algorithm, how do you choose it?*****

*Roy: We’ve chosen Dpos. A voting mechanism is available in Ruff, open to all the community users. You may upload your information. If you make contributions, others may award you with RUFF, and the Ruff Foundation may also award you.*

*****Host: So, will Ruff Chain send the collected data onto the chain?*****

*Roy: We put most data in centralized storages, and only data with value are sent onto the chain. For example, one’s debit and credit record may be data worth sending onto the chain. There’s no need for us to know whether you smoke or not. It is of little significance to send trivial data onto the chain. Only with the blockchain, we can acquire real-time and accurate data, which dramatically promote industries such as supply chain finance. Although the technical costs of “decentralization” are much higher than those of “centralization”, as to data like “debit and credit”, it may take traditional financial institutions several months to evaluate individuals’ credit performance, but the blockchain may significantly shorten the time and improve the transparency.*

*****Host: How many guys are in your team?*****

*Roy: There’re over 50. 70% of them are engineers, with excellent technical backgrounds. We’re very picky in hiring them. They come from big companies, such as Intel, Alipay, Shanda and Cisco … No one tells you what your technical route is, so we need technical experts in segment fields to collaborate.*

*We are a “member of Huangpu Class 1” of Microsoft Accelerator; we’ve won the champion of TechCrunch Hackathon; we have a colleague on the list of “Forbes’ 30 Under 30 Asia”. I’m too old, though, 36. Maybe I can be one “Under 40”.*

*****Host: How does Ruff attract more community users?*****

*Roy: Ruff has 13000 developers. Giants like Microsoft and Huawei are doing their own things. However, developers are most concerned about whether development tools are “friendly or not”. For example, Node.js is not created by a giant company, but it is highly popular. Big companies do not know well how to communicate with community users. Linux, for example, was not developed by a big company. Many hate Ethereum, but developers like us. I don’t suppose big companies can catch up with us. They are unable to gather huge developers within a short time. I extremely need the ecosystem and the community. Just like Google or Android, their “benefits” are not from machines, but from communities. If you really love your community, you need trust from more.*

*****Host: If you have to choose either the technology or the user, which one is more important?*****

*Roy: If I must choose one, I’ll choose the user, since there is hardly a ceiling for technical boundary. It is highly difficult to develop something that all others follow you, and you need to continuously create new things. Even IBM, Apple must learn about their users and their users’ demands, and next demands. Users do not know what their next demands will be, but enterprise owners need to know. Someone wants to copy Ruff, but they do not plan their next step. As to Ruff developers, I know what they want, and Ruff will satisfy them. Why do people trust you? You may tamper data, but after you get the money, it is hard for you to deceive “machines” and the entire ecosystem.*

*You may view their contributions at our website. At the exchange, we have the trading pair of UDST and ETH. It is extremely fast during the cornerstone sales, for the community users support Ruff Chain. I’m also a lecturer in Fudan University. I teach them IoT. I’ll enable more students to learn how to develop with Ruff and display their creativity under appropriate scenarios.*

*****Host: What’s your view of Huobi?*****

*Roy: Huobi pro is our best choice. I’m happy that we are on Huobi, and feel more proud of our technology. We also need to train more developers to use Ruff. We’re launched at the Huobi exchange in January, since Ruff proved that a lot of developers supported us. They contribute their ideas, time and efforts to it.In 2019 or so, you’ll be able to see something interesting in our entire Ruff network. We’re not quite aggressive, or relaxed. Everything is under control.*

*****Host: What do you want to say to Ruff holders?*****

*Roy: When I initiated Ruff, I guessed it should focus on video cards. But it didn’t allow mining, which is also not the main objective of Ruff Chain. Nonetheless, I can’t stop others to do other things with Ruff — Ruff may deal with gas in future; they may trade with Ruff Token.*

*You can’t treat yourself as a “trader”. You should wait long enough, for all the things. Trust the platform. Do not measure it with “have I gained enough benefits?” I know many guys are crazy, but you must have faith. Trust yourself. If you want to invest in digital assets, then, just hold them.*

*****Host: What do you want to say to Chinese audiences?*****

*Roy: I’m delighted to join in Huobi Talk in Singapore. Hope my fans can support me. There’s a long way to go for us, and I believe Ruff is something I can carry on till I retire.*



北京时间5月3日凌​​晨12:00，RUFF创始人Roy Li在新加坡火币办公室参加了YouTube火币Talk全球直播。在本次直播中，Roy Li 谈到了 Ruff 的基础，Ruff 在物联网方面的实际工作以及提供了哪些解决方案。此外，他还回答了网友关于 Ruff Chain 与其他物联网项目的区别等问题。

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*该视频的部分内容如下：*

*****主持人：如何从物联网升级到区块链和物联网领域？*****

*Roy：我在 2014 年创办了 Ruff，当时我想要一个物联网操作系统。2017 年，我想到，我们应该将区块链与物联网结合起来，因为它们有很多共同点。然后，我从经典的PE投资转向数字资产投资。我不知道它到底是怎么发生的，但在我决定之前我确实做了很多研究。我们花了 6 个月的时间来构思 Ruff 链。*

*****主持人：您将如何向 12 岁的孩子解释区块链？*****

*Roy：区块链是一个分布式账本，它使数据不可变，因为每个节点都需要账本。如果您更改自己节点的数据，其他节点的数据仍然保持不可篡改。篡改的成本如此之高，以至于没有人可以说谎。*

*****主持人：Ruff是否希望更多的人能进入这个领域？*****

*Roy：我需要一个必不可少的链来使我们在 IoT OS 上的努力能够在实践中得到应用。我们希望编码变得更容易，以便普通开发人员和设计人员可以开发自己的应用程序。我们希望更多的开发者专注于应用场景，而不是底层开发。我们将提供智能合约的“模板”，让开发者无需过多了解底层知识即可轻松开发自己的 Dapp。*

*****主持人：Ruff Chain是怎么命名的？*****

*Roy：“Ruff”这个词来源于合同桥牌中的规则，意思是“打一张王牌”。我是加拿大青年签约桥牌队成员，职业桥牌选手。*

*****主持人：那么，桥接与物联网或区块链有什么关系？*****

*罗伊：打合同桥需要智商，开发也一样。*

*****主持人：Ruff 提供哪些产品和服务？*****

*Roy：我们的 Ruff OS 让你们有机会参与物联网和区块链，我们的智能合约 API 将使您的 Dapps 开发更加容易。例如，如果你在做一个 Dapp，你可能会基于 Ruff Chain 生态构建自己的 Token 和另一个行业的生态系统。*

*****主持人：物联网为什么要和区块链结合？*****

*Roy：这两种技术都很难；他们的容忍度很低，障碍很高；他们都需要大量的基础设施。就像云计算，10年前很难，现在很容易。区块链有一个巨大的市场，但它的进入具有挑战性。Ruff希望物联网可以更容易，区块链更容易，形成一个去中心化的网络。原因是，当所有东西都结合在一起时，开发任何应用程序都更加困难。现在很多人都在开发基本的连锁设施，但到目前为止，还没有人真正意识到它们，或者向我们提供任何“真实”的产品。用户也无法评估真正的使用价值。*

*区块链的性能相对难以保证，比如以太坊的 P2P 转账。尽管如此，我们可以保证物联网的性能，因为物联网更多地处理发生在“机器”上的事情——你需要实时计算能力、短响应时间和边缘计算，而以太坊没有 API 来获取所有数据，这一切都依赖于物联网。*

*Ruff OS 是一个开放系统。Ruff 真的很了解物联网。我们知道智能合约和“机器”是如何联系起来的，而不是个人。它们完全是两种不同的东西。*

*对于物联网，大量机器需要连接，但连接后会发生什么？目前，没有多少应用程序可以很好地运行这些“东西”。来自不同制造商或不同型号的机器具有不同的协议（您可能将其理解为“它们说不同的语言”）。如果我们把底层抽象出来，你只需要知道JavaScript，写一个简单的代码就会点亮一盏灯：“Turn On”。Ruff OS 所做的就是连接各种物联网设备和设备。例如，小米和飞利浦专注于自己的生态系统；但是，个人的生活场景可能需要不同设备的配合。那么，谁来开发一款“开门开灯”的APP呢？门制造商还是灯制造商？Ruff OS 就是为了这个目的而出现的。*

*****主持人：您能解释一下智能合约吗？*****

*Roy：你可以把你的车想象成“Airbnb”。当你有一天不需要它时，你可以在闲置时通过智能合约将你的汽车出租，任何其他人都可以使用它。物联网划分了物权，如使用时间和使用权，而区块链可以进行数据交易。*

*****主持人：与其他物联网项目相比，Ruff 有什么独特之处？*****

*Roy：我们的客户需要“更快”的产品，其他项目需要达到“企业级”。我的意思不是在实验室进行演示，这至少需要 5 年时间，但我们会在明年年底的某个地方得到它。*

*****主持人：现在RUFF的价格是多少？*****

*罗伊：我不看价格。我更多地关注项目本身。在法定货币方面，大约是发行价格的两倍多；以 ETH 而言，是发行价格的数倍。当我们启动 Ruff Chain 时，我锁定了我团队的 RUFF。我自己不会出售自己的 RUFF。*

*****主持人：关于共识算法，您是如何选择的？*****

*Roy：我们选择了 Dpos。Ruff 提供投票机制，对所有社区用户开放。您可以上传您的信息。如果您做出贡献，其他人可能会奖励您 RUFF，Ruff 基金会也可能会奖励您。*

*****主持人：那么，Ruff Chain 会把收集到的数据上链吗？*****

*Roy：我们将大部分数据放在中心化存储中，只有有价值的数据才会上链。例如，一个人的借记和信用记录可能是值得发送到链上的数据。我们不需要知道您是否吸烟。将琐碎的数据发送到链上意义不大。只有有了区块链，我们才能获取实时准确的数据，从而极大地推动供应链金融等行业的发展。虽然“去中心化”的技术成本远高于“中心化”，但对于“借记贷”等数据，传统金融机构评估个人信用表现可能需要几个月的时间，但区块链可能会显着缩短时间和提高透明度。*

*****主持人：你们队有多少人？*****

*罗伊：有50多个。其中70%是工程师，具有优秀的技术背景。我们在聘用他们时非常挑剔。他们来自大公司，比如英特尔、支付宝、盛大、思科……没有人告诉你你的技术路线是什么，所以我们需要细分领域的技术专家来合作。*

*我们是微软加速器的“黄埔一级会员”；我们赢得了 TechCrunch Hackathon 的冠军；我们有一位同事上榜“福布斯亚洲 30 位 30 岁以下”。不过，我太老了，36 岁。也许我可以成为一个“40 岁以下”的人。*

*****主持人：Ruff 是如何吸引更多社区用户的？*****

*Roy：Ruff 有 13000 名开发人员。微软、华为等巨头都在做自己的事情。然而，开发者最关心的是开发工具是否“友好”。例如，Node.js 不是由大公司创建的，但它非常受欢迎。大公司不知道如何与社区用户沟通。例如，Linux 不是由大公司开发的。许多人讨厌以太坊，但开发人员喜欢我们。我不认为大公司可以赶上我们。他们无法在短时间内聚集大量开发人员。我非常需要生态系统和社区。就像谷歌或安卓一样，它们的“好处”不是来自机器，而是来自社区。如果你真的爱你的社区，你需要更多人的信任。*

*****主持人：如果必须选择技术或用户，哪个更重要？*****

*Roy：如果一定要选一个，我会选用户，因为技术边界几乎没有上限。开发一个所有其他人都跟随你的东西是非常困难的，你需要不断地创造新的东西。即使是IBM，Apple也必须了解他们的用户和他们的用户需求，以及接下来的需求。用户不知道他们的下一个需求是什么，但企业主需要知道。有人想复制 Ruff，但他们没有计划下一步。至于 Ruff 开发者，我知道他们想要什么，Ruff 会满足他们。人们为什么信任你？你可能会篡改数据，但拿到钱后，你很难欺骗“机器”和整个生态系统。*

*您可以在我们的网站上查看他们的贡献。在交易所，我们有UDST和ETH的交易对。基石销售期间速度极快，社区用户支持Ruff Chain。我也是复旦大学的讲师。我教他们物联网。我会让更多的学生学习如何与Ruff一起开发，并在适当的场景下发挥他们的创造力。*

*****主持人：您如何看待火币？*****

*Roy：火币pro是我们最好的选择。我很高兴我们在火币上，并为我们的技术感到更加自豪。我们还需要培训更多的开发人员使用 Ruff。我们在一月份在火币交易所上线，因为 Ruff 证明了很多开发者支持我们。他们为此贡献了自己的想法、时间和精力。在 2019 年左右，您将能够在我们整个 Ruff 网络中看到一些有趣的东西。我们不是很激进，也不是很放松。全部都在掌控之中。*

*****主持人：您想对Ruff持有者说什么？*****

*Roy：当我发起 Ruff 时，我猜它应该专注于显卡。但它不允许挖矿，这也不是 Ruff Chain 的主要目标。尽管如此，我不能阻止其他人对 Ruff 做其他事情——Ruff 将来可能会处理气体；他们可以使用 Ruff Token 进行交易。*

*你不能把自己当作“交易者”。对于所有事情，您应该等待足够长的时间。相信平台。不要用“我获得了足够的好处吗？”来衡量它。我知道很多人都疯了，但你必须有信心。相信自己。如果你想投资数字资产，那么就持有它们。*

*****主持人：您想对中国观众说什么？*****

*Roy：很高兴加入新加坡的火币Talk。希望我的粉丝可以支持我。我们还有很长的路要走，我相信 Ruff 是我可以一直坚持到退休的事业。*