



IOTPAY

Decentralized Autonomous Payment System for IoT Devices

Stakeholders' Interviews Report



Stakeholders Interviews

User needs interviews (8):

- » Mobilize
 - » Sami Belhalfaoui – Program Director – Mobilize Energy Storage
 - » Danielle Koch – Innovation Director – Mobilize Financial Services
 - » Hernan Dario Daza Acevedo – Innovation Project Manager – Mobilize Financial Services
- » Netatmo
 - » Richard Pankanin – Cybersecurity Director
- » Gapask
 - » Rajesh Murthy – President
- » Edukera
 - » Benoît Rognier – CEO
 - » Guillaume Duhamel – CTO
- » Green Energy Group
 - » Markos Koutsakos – Sales Manager

Stakeholders Interviews

User needs interviews (9):

- » AFNIC (DNS manager .fr)
 - » Benoît Ampeau – CTO
 - » Caroline Duval-Favre – Secrétaire Général
- » IMT Atlantique
 - » Laurent Toutain – Professor & Researcher
- » ACE
 - » Mladen Matijas – Director
- » Curved Space
 - » Amin Tejpar – President
 - » Shaheena Mohamed – Business Development
- » SII
 - » Sophie Demoures – Innovation Director (Mobility)
 - » Senda Romdhani – Research Team Manager
 - » Thomas Chevrier – Project Manager

Stakeholders Interviews

User needs interviews (9):

- » OP Mobility
 - » Yannick Raynaud – Scientific Director
 - » Issam Khayat – Innovation Project Manager
 - » Pierre Lecointre – Innovation Advisor
 - » Denis Popielski – Battery Division Head
 - » Alexandre Corjon – Innovation Director
- » Cipango
 - » Frédéric Loos – Founder & President
- » Adaptiv
 - » Jean-Baptiste Leonelli – Founder & President
- » Brinc XDC
 - » Sekaye Malo – Advisor
 - » Aarif Kuang – Manager

Stakeholders Interviews

Interviews (8):

- » Geeps
 - » Simon Meunier – Researcher
 - » Vincent Reinbold – Researcher
- » ISAE-Supaéro
 - » Jérôme Lacan – Professor
 - » Tanguy Perennou – Professor
- » Mairie de Paris
 - » Cédric Deschamps – Project Manager (fleets)
 - » Jérémie Law-Lone
 - » Maxime Pierrepont – Buyer
- » Selego
 - » Antoine Andreu – Sales Manager

Stakeholders Interviews

User needs interviews (6):

- » RATP
 - » Gaëlle Barberis – Innovation Manager
- » Hexitime
 - » John Lodge – Co-founder
- » Innowide
 - » Damien Cuoq – Founder & President
- » Equans Digital
 - » Jean Eskenazi
- » Vesta Systems
 - » Xavier Brunotte – Co-founder & President
- » Tyven
 - » Pierre-Nicolas Cléré – Director

Stakeholders Interviews

Interviews (5):

- » Gibsol
 - » Guillaume Gibeaux – Founder & President
- » Greendoy
 - » Yves-Michel Leporcher – Co-founder & CEO
- » Bservices
 - » Thibaut Deloyne – Director
- » INPI
 - » Antoine Le Brun – IP Legal expert
 - » Sophie Djebari – Manager

Stakeholders Interviews

Interviews (6):

- » Smartwatteo
 - » Edouard Ritz – Co-founder & CEO
 - » Olivier Rouaud – Co-founder & CTO
- » Orange Business
 - » Luc Savage – Marketing Director
 - » Yves-Denis Martin – Innovation Director
- » Kepler
 - » Yannick Beunardeau – Founder & CEO
- » Convex Foundation
 - » Leonard Anderson – Co-founder
 - » Mike Anderson – Co-founder & CEO

Stakeholders Interviews

User needs interviews (3):

- » Dragonflypads
 - » Sissel Thorstensen – Co-founder & CEO
- » Cadventures
 - » Gaëtan Cadéro – Founder
- » Mobilize – Robot Vehicles
 - » Patrick Vergelas – Program Director



IOTPAY

Used Needs Interview Synthesis

Stakeholders' Interviews Report



Usual format of the interviews

Typical 30'–60' interview

- **10–15' presentation of IOTPAY project by Benoît Maïsseu, François Chiron or Evgenii Zhdarkin**
- **10–15' presentation of the activities of the interviewee**
- **10–30' free discussion around both activities and their possible interactions or synergies.**

These durations highly vary depending on the interview format:

- Appointed meeting (video or live)
- Live event (professional show, fair, or conference)
- Phone call

Interview with Sami Belhalfaoui – Program Manager (Mobilize Energy Storage)

- » This interview focused on addressing key user needs concerning an IoT payments solution for energy storage systems.
- » Mobilize highlighted issues with high transaction fees and delays when processing small, frequent payments.
- » Mobilize expressed strong interest in a solution that enhances efficiency, automation, and scalability
- » Possible follow-up: plans to review a proof of concept.

Interview with Danielle Koch – Innovation Director (Mobilize Financial Services)

- » This interview focused on the understanding of Mobilize's ecosystem of start-ups and innovation projects.
- » Mobilize explained how they interact with SME and how they manage innovation in this open ecosystem.
- » Mobilize expressed its interest in decentralized solutions and DLT.
- » Possible follow-up: plans to participate to the start-ups discovery sessions and specific blockchain webinars.

Interview with Hernan Dario Daza Acevedo – Innovation Project Manager (Mobilize Financial Services)

- » This interview was mainly about IOTPAY specific use-cases and the way they connect with different Mobilize divisions.
- » Possible follow-up: plans to participate to the start-ups discovery sessions and specific blockchain webinars.

MOBILIZE
BEYOND AUTOMOTIVE

Interview with Richard Pankanin – Cybersecurity Director

- » This interview focused on the way to ensure secure and reliable digital payments for IoT devices (the main goal of IOTPAY).
- » The discussion included challenges in safeguarding user data, implementing industry standards (PCI DSS and ISO/IEC 27001), and addressing cybersecurity threats specific to IoT ecosystems (device hijacking, supply chain attacks, lack of safe updates, ...). Richard shared insights on balancing security and user convenience, strategies for achieving interoperability.
- » Possible follow-up: common participation to a i-Demo (France) or Eurostars (EU) subsidized project.



Interviews with Rajesh Murthy – President

- » This interview focused on the intersection of secure IoT payments and advanced system architecture.
- » We discussed GAPASK's role in evaluating and enhancing the security, reliability, and interoperability of IOTPAY's digital payment framework.
- » The conversation also explored the future of secure IoT transactions and GAPASK's vision for creating a safer, interconnected digital economy.
- » Possible follow-up: plans to review design a good system architecture.



Interview with Benoît Rognier – CEO and Co-Founder

- » Benoît Rognier shared insights on Edukera, an online platform for teaching mathematics and logic. He highlighted the platform's unique features, including automated validation of mathematical proofs and detailed progress tracking for educators. Then the discussion explored potential synergies between Edukera's expertise in formal mathematics and AI-driven validation and the IOTPAY platform. Benoît Rognier highlighted how Edukera's advanced algorithms and data validation techniques could support IOTPAY's secure microtransaction systems. The conversation also considered the possibility of Edukera adopting IOTPAY for streamlined transaction handling within its online platform.
- » Possible follow-up: Evaluate IOTPAY's integration into Edukera's system to enable secure payment solutions for educational resources.

Interview with Guillaume Duhamel – CTO and Co-Founder

- » The conversation delved into the technical possibilities of leveraging Guillaume's expertise in algorithm design, optimization, and distributed computing for potential collaboration with IOTPAY. Guillaume highlighted how Edukera's experience with AI, machine learning, and data processing could intersect with IOTPAY's blockchain-powered microtransactions. Possible synergies included integrating Edukera's optimization algorithms into IOTPAY's systems to enhance transaction efficiency or exploring how IOTPAY could facilitate secure payments within Edukera's educational platform.
- » Possible follow-up: Investigate integrating IOTPAY's microtransaction framework to streamline Edukera's payment processes and explore joint R&D for scalable and efficient blockchain solutions.



Interview with Markos Koutsakos – Sales Manager

- » The discussion centered on the potential integration of IOTPAY's blockchain-powered solutions with Green Energy Group's energy-saving initiatives in Cyprus. As a leader in renewable energy and an approved Electricity Supply Company by the Cyprus Energy Regulatory Authority (CERA), Green Energy Group's focus on sustainability and efficiency aligns with IOTPAY's capabilities in enabling secure and decentralized transactions. Topics explored included the use of IOTPAY for streamlining energy credit exchanges, supporting peer-to-peer energy trading, and enhancing transparency within the competitive electricity market introduced in October 2022.
- » Possible follow-up: Evaluate opportunities for pilot projects where IOTPAY could support Green Energy Group's renewable energy operations, such as blockchain-enabled energy marketplaces or decentralized billing systems.



Interviews with Benoît Ampeau – CTO

- » This interview focused on the importance of secure and efficient DNS systems in the IoT ecosystem, which is critical for the success of the IoT fleet deployment and operational management.
- » The discussion explored challenges in managing DNS infrastructure for IoT devices, ensuring scalability, and maintaining resilience against cyber threats such as DDoS attacks, spoofing, and misconfiguration. Benoit Ampeau shared insights on leveraging advanced DNS techniques to support IoT payments, strategies for achieving interoperability with global standards, and ensuring real-time responsiveness.
- » Possible follow-up: Collaborative participation in DNS-focused R&D programs, such as Horizon Europe or a Eurostars initiative, to further enhance IoT payment reliability.

Interview with Caroline Duval – General Secretary

- » This interview focused on the broader implications of secure IoT systems for fostering trust and innovation in the digital economy, with a special emphasis on the IOTPAY project.
- » The discussion addressed the role of governance, regulation, and ethical considerations in creating a reliable and inclusive IoT payment ecosystem. Caroline Duval highlighted the importance of aligning IoT solutions with global data protection and security standards (e.g., GDPR, ISO 27001) while balancing innovation and user trust. She also emphasized the need for cross-sector collaboration to ensure the scalability and societal impact of IoT initiatives like IOTPAY.
- » Possible follow-up: Joint exploration of policy frameworks or participation in regulatory and standardization initiatives like NGI or Eurostars to address the governance of IoT ecosystems.



Interview with Laurent Toutain – Researcher

- » This interview focused on leveraging a new compressed protocol for IoT communication, which could also enhance payment systems like IOTPAY.
- » IMT detailed the challenges posed by bandwidth constraints in IoT ecosystems, especially as the number of connected devices grows exponentially. The discussion emphasized the importance of lightweight, efficient communication protocols to optimize performance and reliability in IoT transactions. IMT highlighted how these protocols could support scalable, real-time payments while reducing network load and energy consumption.
- » Possible follow-up: Plans to organize a dedicated working session to explore technical implementation and collaboration opportunities



IMT Atlantique
Bretagne-Pays de la Loire
École Mines-Télécom

Interview with Mladen Matijas

- » This interview focused on the integration of IOTPAY into decentralized energy communities to facilitate secure and seamless energy transactions.
- » The discussion explored how IOTPAY can enable real-time payments for energy exchanges between prosumers and consumers, leveraging IoT-enabled devices to automate billing and payment processes. Key challenges addressed included ensuring data privacy, achieving interoperability across diverse energy systems, and maintaining low transaction costs. The potential of blockchain or similar decentralized technologies to enhance transparency and trust in energy markets was also highlighted.
- » Possible follow-up: Plans to organize a pilot project within a decentralized energy community to test and refine the solution in a real-world context.

Curved Space Data

Interview with Amin Tejpar – President

- » This interview focused on Curved Space Data services that could potentially synergize with an IoT payment solution like IOTPAY. Their expertise in informatics and predictive analytics could enhance IOTPAY's data processing capabilities. The company's focus on digital transformation and emerging technologies aligns well with the IoT sector, potentially allowing for seamless integration of IOTPAY into various IoT ecosystems

Interview with Shaheena Mohamed – Business Developer

- » This interview focused on the possible synergies between Curved Space Data and IOTPAY. Their expertise in data storytelling could transform complex IoT payment data into compelling narratives, making IOTPAY's benefits more accessible to stakeholders. This approach combines data analysis with effective communication, delivering powerful insights that engage and motivate decision-makers
- » Possible follow-up: plans to investigate a common proof of concept.



Curved Space Data

Interview with Senda Romdhani – Innovation Project Manager

- » Senda emphasized the role of cutting-edge R&D and the potential of IOTPAY to enable seamless transactions in applications like decentralized energy communities. She also shared SII's vision for fostering innovation through collaborative projects and leveraging their expertise in advanced system development to support IOTPAY's success.
- » Possible follow-up: Plans to initiate joint R&D activities to test and optimize IOTPAY in real-world IoT applications.



Interview with Sophie Demoures – Innovation Director

- » This interview focused on the role of IOTPAY in driving innovation for IoT-based payment systems.
- » The discussion centered on the transformative potential of IoT payments in various sectors, emphasizing the importance of secure and interoperable solutions like IOTPAY. Sophie highlighted how the technology could streamline payment processes in complex ecosystems, such as decentralized energy communities, while maintaining data privacy and cost efficiency. She also discussed strategies for fostering innovation through partnerships and leveraging SII's expertise in system integration to support IOTPAY's development.
- » Possible follow-up: Plans to explore collaborative R&D initiatives to enhance IoT payment systems across multiple industries.

Interview with Thomas Chevrier – Software Manager

- » This interview focused on the role of IOTPAY in the software tool libraries for IoT devices.
- » The discussion centered on the system architecture approaches for IoT solutions.

Interview with Issam Khayat – Innovation Project Manager

- » The discussion explored how IOTPAY can enable secure transactions in mobility ecosystems, particularly for EV charging, toll collection and shared mobility services. Issam emphasized the importance of integrating predictive analytics and IoT payment systems to enhance user experiences, optimize fleet management, and ensure scalability. scalability
- » Possible follow-up: plans to pilot IOTPAY in OP Mobility's connected mobility platforms, focusing on EV charging networks and shared mobility solutions.

Interview with Alexandre Corjon – Innovation Director

- » This interview focused on IOTPAY's potential to drive innovation in the mobility sector.
- » Alexandre underlined the role of innovation in addressing challenges like interoperability, data security, and scalability in IoT-enabled payment solutions. He also shared insights into how IOTPAY aligns with OP Mobility's vision of enhancing user experiences while fostering sustainable and future-ready mobility solutions.
- » Possible follow-up: Plans to integrate IOTPAY into OP Mobility's innovation initiatives and test its implementation in cutting-edge mobility projects.



Interview with Yannick Raynaud – Scientific Director

- » The discussion explored the innovative content of IOTPAY and its specific IP potential and the way it could be managed with OP Mobility support.

Interview with Denis Popielski – Battery Systems Department Head

- » The discussion explored the DPP (Digital Product Passport) for batteries and its implementation on blockchain in combination with DID (Decentralized Identities).

Interview with Pierre Lecointre – Senior Consultant

- » This interview focused on the strategic implementation of IOTPAY in mobility ecosystems. Pierre shared his insight on the connectivity for the automotive and mobility market (fleet management, shared mobility for example).
- » The discussion explored how IOTPAY can enhance payment solutions in mobility services. Pierre emphasized the importance of integrating innovative technologies into mobility platforms to optimize user experiences and operational efficiency. He also highlighted the challenges of ensuring interoperability across diverse systems while addressing data privacy and scalability. His perspective on IOTPAY's role in driving sustainable and customer-centric solutions underscored its potential impact on the mobility sector.
- » Possible follow-up: Plans to collaborate on pilot projects within OP Mobility to test IOTPAY's scalability and adaptability in real-world mobility scenarios.



Interview with Frédéric Loos

- » Frédéric Loos is a seasoned veteran of payment solutions. He developed Cipango.plus an online payment platform that integrates several tools which simplify the user experience (like down payment management for quotations validation). This interview focused on addressing key user needs concerning a payment solution.
- » Possible follow-up: some possible collaboration were discussed, Frédéric's expertise could be very useful for IOTPAY.

CIPANGO.PLUS

Interview with Jean-Baptiste Leonelli – Founder & CEO

- » Jean-Baptiste Leonelli, CEO and founder of Adaptiv Systems, discussed the integration of IOTPAY's blockchain-powered payment solutions into Adaptiv's IoT ecosystems. Adaptiv Systems specializes in designing and deploying bespoke IoT solutions across various industries. The conversation explored how IOTPAY's secure and decentralized transaction capabilities could enhance Adaptiv's offerings, particularly in areas like real-time data collection and analysis. Potential applications include streamlining payment processes within IoT networks and enabling automated transactions between connected devices.
- » Possible follow-up: Investigate pilot projects where IOTPAY's blockchain-enabled payment systems can be integrated into Adaptiv Systems' IoT solutions, such as automated billing for smart building services or secure transactions in industrial IoT applications.



Brinc – XDC

Interview with Sekaye Mola – Brinc XDC incubator scout.

- » This interview focused on the potential of integrating IOTPAY with the Layer 1 blockchain XDC, with insights from Sekaye Malo.
- » The discussion revolved around how XDC's high-speed, low-cost, and energy-efficient blockchain infrastructure could support IOTPAY's vision of secure and scalable IoT payments. Sekaye highlighted the advantages of using XDC's decentralized network to enhance transaction transparency, reduce costs, and ensure interoperability across IoT ecosystems. Challenges such as on-chain and off-chain data integration and optimizing user accessibility in blockchain-powered systems were also discussed.
- » Possible follow-up: Plans to build IOTPAY on XDC layer 1 blockchain and possible participation to Brinc incubator/accelerator.

Interview with Aarif Kuang – Associate Program Manager.

- » Aarif Kuang shared insights on Brinc's accelerator programs and Web3 advancements, emphasizing the role of blockchain in fostering sustainable innovation. Drawing from his experience at Hi Block and Athena Ventures, Aarif discussed strategies for scaling startups in Web3, focusing on resource allocation and market adaptability. He highlighted the importance of bridging technical expertise with market-driven solutions to unlock new growth opportunities.
- » Possible follow-up: Explore partnership opportunities for IOTPAY with Brinc's accelerator to enhance blockchain-based payment systems.



Interview with Simon Meunier – Researcher

- » This interview focused on IOTPAY's potential in energy systems integration, with insights from Simon Meunier, researcher at Pôle Énergie – Composants, Conversion et Systèmes.
- » The discussion highlighted how IOTPAY could support secure, efficient transactions in smart grids and energy distribution networks. Simon emphasized the need for scalable payment systems that align with energy system constraints, such as efficiency, integration, and reliability. He explored how IOTPAY could address challenges in decentralized energy exchanges, such as compatibility with compact, high-performance energy systems and ensuring robust cybersecurity. The potential role of IoT and payment automation in enhancing energy system management and decarbonized mobility was also discussed.
- » Possible follow-up: Plans to test IOTPAY within smart-grid environments or simulation to evaluate its integration with advanced energy systems and its impact on efficiency and reliability.

Interview with Vincent Reinbold – Researcher

- » The discussion with Vincent Reinbold (researcher at Pôle Énergie – Composants, Conversion et Systèmes) explored how IOTPAY can facilitate secure and efficient financial transactions within microgrid environments, supporting the optimal use of local generation, consumption, and storage resources. Vincent emphasized the importance of aligning payment systems with the complexities of microgrid energy management, particularly in scenarios involving uncertainty in load and renewable generation. He highlighted how IOTPAY's integration could streamline transactions for energy exchanges, enhance cost optimization, and support dynamic energy management strategies. The discussion also addressed challenges related to interoperability and real-time payment processing in such systems.
- » Possible follow-up: see above



Interview with Jérôme Lacan – Professor

- » This interview focused on IOTPAY's application within embedded systems and blockchain technologies, with insights from Jérôme Lacan, professor at ISAE-Supaéro and head of the Complex Systems Engineering department.
- » The discussion explored how IOTPAY could leverage secure IoT communication for microtransactions in decentralized and resource-constrained systems, such as drones, satellites, and autonomous vehicles. Jérôme emphasized the challenges of implementing efficient, scalable payment mechanisms within embedded environments, particularly under constraints like low power and bandwidth. We highlighted the potential of IOTPAY to align with cryptographic advancements, including post-quantum and threshold cryptography, to enhance security in high-reliability systems.
- » Possible follow-up: Plans to evaluate IOTPAY within embedded blockchain use cases at ISAE-Supaéro, focusing on its scalability and robustness in aerospace and IoT applications.

Interview with Tanguy Pérennou – Professor

- » This interview focused on the potential application of IOTPAY in secure and reliable IoT communication systems.
- » The discussion explored how IOTPAY could be integrated into IoT ecosystems to facilitate efficient microtransactions while addressing challenges in reliability and scalability, particularly in environments with constrained resources. The importance of leveraging advanced error correction and data dispersal techniques was highlighted to ensure robustness and efficiency in IoT-enabled payment systems.
- » Possible follow-up: Plans to collaborate on simulations to test IOTPAY's integration within secure and scalable IoT communication frameworks, focusing on its performance under varying network conditions.

Interview with Cédric Deschamps – Vehicle Fleet Project Manager

- » This interview focused on the potential application of IOTPAY in urban infrastructure projects.
- » The discussion explored how IOTPAY could streamline transactions for smart city initiatives, particularly in urban energy management and public infrastructure systems. Cédric highlighted how IOTPAY could enhance the interaction between municipalities, service providers, and residents, ensuring transparency and accessibility while optimizing operational costs. The role of IOTPAY in enabling scalable and interoperable payment frameworks across diverse urban projects was also discussed.
- » Possible follow-up: Plans to pilot IOTPAY in energy management initiatives or public infrastructure projects within Ville de Paris to evaluate its impact on urban innovation and efficiency.

Interview with Jérémie Law-Lone – EV Charging Infrastructure Engineer

- » This interview focused on the application of IOTPAY in electric vehicle (EV) charging infrastructure.
- » The discussion explored how IOTPAY could streamline payment processes for EV charging stations and its possible interaction with Plug&Charge and ISO15118. Jérémie highlighted the importance of interoperability across diverse charging networks and the need for seamless integration with existing standards and deployed infrastructure. Werenode emphasized IOTPAY's potential to simplify operations for users and operators while aligning with the city's sustainability and smart mobility objectives. Challenges such as cybersecurity, scalability, and user accessibility were also addressed.
- » Possible follow-up: see above.



Interview with Maxime Pierrepont – Procurement Manager

- » The discussion explored how IOTPAY could streamline payment systems in public procurement, particularly for urban mobility solutions and energy-efficient infrastructure. Maxime emphasized IOTPAY's potential to enhance supplier relationships, simplify transaction processes, and align with sustainability objectives in public projects. The conversation also addressed challenges in implementing innovative payment systems in established procurement frameworks.
- » Possible follow-up: see above

Interview with Antoine Andreu

- » This interview focused on IOTPAY's potential for commercial growth, with insights from Antoine Andreu of Selego.
- » The discussion explored how IOTPAY could develop its market within support from Selego. Indeed Selego is a commercial growth hacking studio.
- » Possible follow-up: investigations for possible collaboration.

Interview with Gaëlle Barberis

- » The discussion focused on potential synergies between IOTPAY's blockchain-based microtransaction solutions and RATP Group's innovation programs, led by Gaëlle Barberis. As a key player in urban mobility and open innovation, RATP is actively exploring partnerships with startups to address sustainability, efficiency, and digital transformation challenges. The conversation investigated the application of IOTPAY for enabling secure, real-time microtransactions, such as payments for EV charging, ticketing, and smart mobility services across RATP's extensive infrastructure.
- » Possible follow-up: Investigate pilot opportunities where IOTPAY could support decentralized payment systems for mobility solutions, smart charging networks, or integration with RATP's broader open innovation and startup collaboration programs.



Interview with John Lodge

- » This interview focused on the integration of IOTPAY into cooperative systems, with insights from John Lodge, founder of Hexitime, a time-banking solution for cooperative exchanges.
- » The discussion explored how IOTPAY could complement cooperative time banks by enabling secure and automated transactions, particularly in IoT-driven environments. John highlighted the importance of creating trust and transparency in digital exchanges, emphasizing how IOTPAY's decentralized and scalable architecture aligns with the ethos of cooperative platforms. He also discussed challenges like user accessibility and the integration of IoT technologies into community-based systems.
- » Possible follow-up: plans to pilot IOTPAY within Hexitime to explore its potential in facilitating secure and seamless exchanges in cooperative ecosystems.



Interview with Damien Cuoq – Founder & President

This interview with Damien Cuoq centered on their vision for IoT in energy efficiency and potential hardware development. Mr. Cuoq discussed Innowide's strategic focus on leveraging IoT to optimize energy consumption, particularly within the context of emerging energy communities. The conversation explored potential avenues for developing specialized hardware solutions to facilitate data collection and management for these decentralized energy initiatives.

Possible follow-up: Discussing specific hardware requirements and potential collaborations for developing tailored IoT devices to support energy communities, potentially integrating IOTPAY for transaction management.



Interview with Jean Eskenazi

- » This interview focused on IOTPAY's potential for digital integration in smart infrastructure, with insights from Jean Eskenazi of Equans Digital.
- » The discussion explored how IOTPAY could enhance payment systems within industrial, urban, and territorial ecosystems by leveraging Equans Digital's expertise in connectivity, data management, and AI-driven solutions. This highlighted how Equans Digital's experience in infrastructure data management and automation could support IOTPAY's adoption in diverse environments, ensuring integration with existing digital ecosystems.
- » Possible follow-up: investigations for possible collaboration.



Interview with Xavier Brunotte – CEO & Founder

- » This interview focused on the integration of IOTPAY into intelligent energy management systems.
- » The discussion explored how IOTPAY could complement Vesta-System's solutions by enabling automatic financial transactions for local energy production, storage, and consumption, thus allowing to integrate IoT-enabled payments into smart energy systems to enhance user convenience, optimize costs, and support gradual transitions toward carbon neutrality. He highlighted how IOTPAY could streamline interactions between consumers, energy suppliers, and local production units, ensuring efficiency and transparency. The potential to align IOTPAY with Vesta-System's progressive implementation approach was also discussed.
- » Possible follow-up: Plans to pilot IOTPAY within Vesta-System's intelligent energy management platforms to evaluate its impact on cost savings and system efficiency.

Interview with Pierre di Candido – Sales Director

- » This interview focused on the potential of integrating IOTPAY into Vesta-System's energy management solutions.
- » The discussion centered on how IOTPAY could enhance Vesta-System's offerings by enabling secure, real-time transactions for energy consumption, production, and storage. Pierre emphasized the value of seamless payment solutions in boosting customer satisfaction and simplifying interactions with energy suppliers and local production units. He highlighted how IOTPAY could support Vesta-System's mission to provide efficient, cost-saving energy management while ensuring scalability and ease of implementation for clients.
- » Possible follow-up: Plans to introduce IOTPAY to Vesta-System's client base as part of a joint pilot project to assess its contribution to energy efficiency and customer experience.



Interview with Philippe Carré – General Manager

- » This interview explored how Tyven's smart energy management solutions align with the integration of IOTPAY for facilitating seamless and secure digital transactions in energy-efficient buildings. Philippe Carré shared insights on how Tyven automates energy optimization while maintaining occupant comfort, leveraging AI and IoT for adaptive configurations and cost savings. The discussion also highlighted how IOTPAY can enable frictionless payment systems for energy usage, supporting scalable models for decentralized energy management in compliance with evolving regulations.
- » Possible follow-up: Plans to explore IOTPAY's implementation within Tyven's automated energy management systems.

Interview with Pierre-Nicolas Cléré – Director

- » Pierre-Nicolas Cléré is also Vice President of the Smart Building Alliance
- » Pierre-Nicolas Cléré discussed Tyven's innovative energy management systems designed for compliance with the BACS directive. He emphasized the solution's adaptability, AI-driven automation, and compatibility with existing infrastructures to deliver energy efficiency and sustainability. With over 30 years of experience in smart building technologies, he highlighted Tyven's role in advancing carbon neutrality through IoT and automation.
- » Possible follow-up: Explore collaborations with the Smart Building Alliance to enhance IoT and AI integration for regulatory compliance.





SmartWatteo is a French company specializing in IoT solutions aimed at enhancing energy efficiency and reducing water consumption in residential and tertiary buildings. They assist building managers in renovating their properties to achieve optimal returns on investment by leveraging public subsidies such as energy savings certificates and assistance from the French National Housing Agency (www.smartwatteo.fr).

Interview with Edouard Ritz – Co-Founder & CEO

This interview with Edouard Ritz highlighted their approach to optimizing resource management. Mr. Ritz explained how SmartWatteo assists building managers in renovations, leveraging IoT to achieve energy savings and reduce water consumption while securing public subsidies. The discussion explored the role of connected devices and data analytics in achieving optimal returns on investment for property owners. We also discussed the potential for integrating IOTPAY to facilitate seamless and secure transactions related to energy and water usage within SmartWatteo's ecosystem. Mr. Ritz shared his vision for the future of smart buildings and the importance of accessible and efficient resource management solutions.

Interview with Olivier Rouaud – Co-Founder & CTO

This interview with Olivier Rouaud focused on the technological underpinnings of their IoT solutions for energy and water efficiency in buildings. Mr. Rouaud detailed SmartWatteo's technology stack and their approach to data acquisition and analysis for optimizing resource management. We discussed the potential integration of IOTPAY for secure transactions related to monitored consumption within their platform.

Possible follow-up: Exploring specific integration points for IOTPAY within SmartWatteo's platform and potential collaborations to enhance the user experience and financial aspects of energy and water management.

Interview with Luc Savage – Marketing Director

This interview delved into the role of IoT in shaping future business strategies and solutions. Mr. Savage provided insights into how Orange Business leverages its extensive network infrastructure and expertise to empower various industries through connected devices and data analytics. The discussion highlighted the increasing adoption of IoT for enhancing operational efficiency, creating new revenue streams, and improving customer experiences across sectors like manufacturing, logistics, and smart cities. Mr. Savage also touched upon the critical aspects of data security and privacy within large-scale IoT deployments and Orange Business's approach to addressing these challenges. Furthermore, the conversation explored emerging trends in IoT, such as the convergence of AI and edge computing, and their potential impact on future business innovation.

Interview with Yves-Denis Martin – Innovation Director

This interview focused on cutting-edge IoT advancements and their potential for future applications. Mr. Martin discussed Orange Business's innovation roadmap within the IoT landscape, highlighting key areas of research and development. The conversation explored the integration of emerging technologies and their impact on connected solutions. Specifically, we discussed the potential synergies with IOTPAY for secure and seamless digital transactions within connected ecosystems.

Possible follow-up: Exploring specific avenues for integrating IOTPAY within Orange Business's innovative IoT solutions and potential joint development opportunities with Werenode SAS



Kepler Digital is a French startup based in Bordeaux, specializing in integrating blockchain technology into the aviation and urban air mobility sectors to enhance security, efficiency, and sustainability.

Interview with Yannick Beunardeau

This interview with Yannick Beunardeau from Kepler Digital, a French startup based in Bordeaux, explored their innovative application of blockchain technology within the aviation and urban air mobility sectors. Mr. Beunardeau detailed how Kepler Digital leverages blockchain to enhance security, improve operational efficiency, and promote sustainability within these industries. The discussion highlighted specific use cases and the potential of blockchain to create more transparent and resilient systems. Mr. Beunardeau shared insights into the challenges and opportunities of implementing decentralized technologies like IOTPAY in highly regulated environments.

Possible follow-up: Exploring specific Kepler Digital and Werenode projects and potential collaborations leveraging blockchain for enhanced security and efficiency in aviation and urban air mobility.

www.keplerdigitals.io



Convex introduces "Lattice Technology," a novel category of decentralized programmable economic systems that achieve rapid consensus through a unique algorithm. This approach enables the platform to process transactions with sub-second finality and throughput exceeding 10,000 transactions per second (TPS), while minimizing risks such as front-running. docs.convex.world

Interview with Leonard Anderson

This interview with Leonard Anderson of Convex provided a deeper understanding of their innovative "Lattice Technology" for decentralized programmable economic systems. Mr. Anderson elaborated on the core principles of their unique consensus algorithm, emphasizing its ability to achieve sub-second transaction finality and a throughput exceeding 10,000 transactions per second. We explored the architectural design choices that contribute to this high performance and the inherent mechanisms implemented to minimize risks such as front-running. The discussion also touched upon potential applications of this technology beyond traditional finance, including its relevance for secure and efficient microtransactions within IoT ecosystems. The potential for integrating IOTPAY to leverage Convex's speed and security for seamless digital transactions in connected environments was also considered.

Interview with Mike Anderson

Mr. Anderson elaborated on the platform's ability to achieve rapid consensus and high transaction throughput. The conversation also focused on the security features embedded in their algorithm to mitigate risks.

Possible follow-up: Investigating specific use cases in IoT and other sectors where Convex's high-performance, secure decentralized infrastructure, potentially combined with IOTPAY, could offer significant advantages.



Dragonflypads

DragonFlyPads is a French startup established in 2020 that specializes in creating a network of versatile, remotely operated ground infrastructures—known as vertipads—to support commercial Unmanned Aerial Systems (UAS), commonly referred to as drones. These vertipads function as hybrid facilities, combining elements of mini airports and service stations, designed to accommodate various drone operations such as surveillance, logistics, and cargo delivery. www.dragonflypads.com

Interview with Sissel Thorstensen

This interview with Sissel Thorstensen detailed the concept of hybrid mini-airport and service station facilities designed to support diverse drone operations like surveillance, logistics, and cargo delivery. The discussion highlighted the remote operation capabilities and the versatility of these vertipads in accommodating various UAS. Ms. Thorstensen shared insights into the potential of this infrastructure to enable and scale commercial drone applications. Integrating IOTPAY could potentially streamline payment processes for drone services like charging, landing fees, or data access at these vertipads. Ms. Thorstensen shared insights into the potential of this infrastructure to enable and scale commercial drone applications.

Possible follow-up: Possible follow-up: Investigating the technical specifications and operational capabilities of DragonFlyPads' vertipads and exploring the feasibility of integrating IOTPAY for seamless transaction management within their network.



Annex



Stakeholder Interviews Synthesis – Online form 1

1. With whom have you conducted interviews?

We have conducted over **60 interviews** with stakeholders from various sectors relevant to the IOTPAY ecosystem. These include:

- Mobility & Automotive:** Mobilize (Renault Group), RATP, OP Mobility
- Energy & Smart Grids:** Green Energy Group, Equans Digital, Vesta System, Tyven, ACE, GEEPS Lab
- Telecom & IoT:** Orange Business, Netatmo, Adaptiv Systems
- Cybersecurity & Infrastructure:** AFNIC, IMT Atlantique
- Startups & Innovation Hubs:** Curved Space Data, Brinc-XDC, Hexitime, Innnowide
- Public Sector & Smart Cities:** Mairie de Paris
- Academia & Research:** ISAE-Supaéro, IMT Atlantique
- Others:** Edukera (edtech), Cadventures (3D mobility), Cipango (payment tech), and more.



2. What insights have you gained from your interactions with the ecosystem?

From these interviews, we've identified several recurring needs and opportunities:

- Secure and scalable micropayments:** Strong demand across mobility, energy, and IoT sectors for decentralized, automated, and low-cost transaction systems.
- Integration with existing infrastructures:** Partners like Vesta, Tyven, and OP Mobility emphasized the importance of compatibility with legacy systems and regulations (e.g., BACS directive, GDPR).
- Cybersecurity and trust:** Organizations such as Netatmo and AFNIC highlighted challenges related to data protection, standards compliance, and trust in IoT-based payments.
- Interoperability and open innovation:** Stakeholders from both private and public sectors stressed the importance of open, interoperable systems that can adapt to multi-actor environments.
- Interest in pilot projects:** Multiple entities (e.g., Green Energy Group, Mobilize, RATP, Vesta) expressed willingness to co-develop or test IOTPAY in real-world environments.



Stakeholder Interviews Synthesis – Online form 3

3. Are you facing any challenges in organizing these interviews?

Yes, some challenges have emerged:

- Coordination and scheduling:** Reaching decision-makers, especially in large organizations, often requires persistence and long lead times.
- Diverse formats and depths:** Interviews range from in-depth video calls to brief exchanges during events, making consistency in data collection difficult.
- Maintaining engagement:** Keeping stakeholders involved beyond the initial discussion can be difficult without immediate opportunities or prototypes to share.
- Complexity of ecosystems:** Given the cross-sector nature of IOTPAY (mobility, energy, IoT, fintech), aligning vocabulary and expectations across domains is a continuous challenge.



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