

The future of Outsourcing Governance

Automating the settlement of service levels violations

Wilhem Pujar [1] *, Jean-Daniel Bussy* [2]

CRYP2NOVA

1 wilhem.pujar@stacktical.com

2 jeandaniel.bussy@stacktical.com

THIS DOCUMENT DOES NOT CONSTITUTE A PROSPECTUS RELATING TO A REGULATED FINANCIAL TRANSACTION AND CONSEQUENTLY HAS NOT BEEN FILED OR REGISTERED WITH THE FRENCH FINANCIAL REGULATOR (Autorité des Marchés Financiers), OR IN ANY REGULATORY BODY IN FRANCE OR IN ANY OTHER COUNTRY.

Archived copy · cryp2nova.com

GENERAL DISCLAIMER

Potential DSLA Tokens purchasers are advised to read this disclaimer carefully before reading, accessing or making any other use of the present white paper (the "White Paper"). The White Paper shall not be distributed without including this disclaimer.

The present Tokens Sale and the White Paper have not been registered under any law or regulations, by its issuer, Stacktical SAS, a French *société par actions simplifiée* with a share capital of EUR 100, having its registered office at 3 Boulevard de Sebastopol, 75001 Paris, and registered with the French Commercial Court Registry under number 829 644 715 RCS Paris ("Stacktical"). Please note that owing to restrictions imposed by law and regulations in various jurisdictions, soliciting to purchase Decentralized Service Level Agreement Tokens (the "DSLA Tokens") may not be permitted to residents of certain jurisdictions. The White Paper does not constitute an offer to purchase securities or financial instruments, or an invitation to invest in such instruments.

Therefore, this document is not intended for distribution to, or use by:

- any person or entity, in any jurisdiction or country, where distribution or use of such information would be contrary to law or regulation; or
- any person or entity in any jurisdiction or country, where, by virtue of such distribution, the issuer would become subject to new or additional registration requirements.

Any person in possession of this White Paper is required to inform himself of this information and to observe strictly these restrictions before considering purchasing DSLA Tokens. More specifically, and without it being limited to the following list, the DSLA Tokens purchase is not open to any US Person (as such term is defined in Regulation S of the US Securities Act of 1933, as amended) nor to the residents of the People's Republic of China.

By reading this document and/or purchasing DSLA Tokens, all potential DSLA Tokens purchasers warrant, represent and agree that he is not a citizen, tax or permanent resident of a country where the purchase of cryptographic tokens, such as the DSLA Tokens, is prohibited, restricted or requires registration of any kind.

The Stacktical project is to issue cryptographic tokens, the DSLA Tokens, usable only on a dedicated platform (the "Platform"), allowing:

- service providers to roll out and manage service level agreements using the Stacktical platform, and
- customers to be compensated for performance failures, using DSLA Tokens (the "Stacktical Project").

The Stacktical Project will be financed thanks to a fundraising realized by DSLA Tokens Sale as presented in this White Paper, allowing, amongst other investments, to finance the technical and marketing setup of the Platform, the Research and Development needed to develop the software and implement services, the search for business partners, and the conformity of Stacktical Project with regulations (the "Stacktical Token Sale"). The information contained in the present White Paper is subject to change, notably, in consideration of the evolutions that may occur on the Stacktical Project structure due to regulations, business opportunities or project development. Stacktical Project presents several risks for potential subscribers, in particular that of losing all amounts invested in the Stacktical Token Sale, in case of prohibition of it by any law or regulation, or for any other reason, as detailed (without being exhaustive) in the Section Legal information (Terms & Conditions) of the present White Paper.

Among these risks, the one of seeing the Token Sale forbidden after having purchased DSLA Tokens, in case of adoption of new legislations, regulations, instructions or guidelines issued by any competent authority regarding Blockchain based fundraising has to be underlined.

Please find more details about these risks in the last section (Terms & Conditions) of this White Paper. If you have any questions regarding these risks and how we intend to structure the Platform and Stacktical Token Sale, please contact us at contact@stacktical.com.

Only people who are fully aware of the risks described herein and in Section Legal information of the present White Paper are allowed to purchase DSLA Tokens. Please note that the Stacktical Token Sale strictly excludes certain groups of people depending on their nationality and place of residency. The list of excluded groups is subject to evolve depending on regulations applying to Stacktical Token Sale. All participants shall verify that they are allowed to subscribe to the Stacktical Token Sale and accept to comply with know your customer and anti-money laundering proceedings needed at the time of the Token Sale, and to any new obligation set up by new regulations in the course or after the Token Sale. Stacktical team reserves itself the right to exclude any DSLA Tokens purchaser that would not respect these obligations. Stacktical disclaims and makes no representation or warranty

Archived copy · cryp2nova.com

with respect of the Stacktical Token Sale and the Stacktical Project. DSLA Tokens purchaser's decision to participate shall be made based on such DSLA Tokens purchaser's own knowledge of the Stacktical Project and of the Stacktical team. Notwithstanding the generality of the foregoing, each DSLA Tokens purchaser will, upon the Stacktical Token Sale, accept DSLA Tokens on an "as is" basis, irrespective of its technical specifications, performance or function.

BY PURCHASING DSLA TOKENS, YOU EXPRESSLY ACKNOWLEDGE, ACCEPT AND ASSUME THESE RISKS AND DECLARE THAT YOU ARE NOT PART OF ONE OF THE GROUPS EXCLUDED FROM THE POTENTIAL DSLA TOKENS PURCHASERS.

CRYP2NOVA

Archived copy · cryp2nova.com

ARTICLE INFO

Keywords:

Scalability
Performance Management
Total Compensation Management
Service Catalog Management
Service Level Management (SLM)
Service Level Agreements (SLA)
Quality of Service (QoS)
Cloud Computing
Edge Computing
Blockchain
Predictive Analytics
Artificial Intelligence

ABSTRACT

While it is never been easier to expose online services to a global audience, ensuring that they always meet the performance, capacity and scalability requirements of a large, unpredictable user base remains unnecessarily challenging.

Even the most talented engineering and support teams around the world must ultimately handle a never-ending stream of failures induced by the bottlenecks of applications and their underlying hardware, software and configuration components.

In this paper, we discuss the problems in current service level management practices and how Stacktical brings new, creative ways to guarantee the reliability at scale of online services, while also nurturing trust and better aligning interests between application stakeholders.

1. On the difficulty of achieving reliability at scale

Reliability is arguably the most fundamental feature of any online service.

For an online service to be deemed reliable, it needs to ensure a bug-free, fast and reliable experience to its users, change after change, release after release.

But comparatively to the great number of tools that help identify and address bugs in software release candidates, reliability testing software and practices such as load testing haven't evolved much over the last decades. The industry-leading load testing tool is still LoadRunner, a software pioneered in 1999. Like other tools on the market, LoadRunner struggles to fit with modern development methodologies that focus on increasing the velocity of deliveries to the production environment.

Not only can tests take several days to complete, but also analyzing test results into actionable scalability insights relies too much on human intervention to be automated like the rest of the delivery pipeline.

For the sake of shipping software as fast as possible, service providers end up introducing untested changes to their production environment. It is a risky trade-off that creates the perfect conditions for performance failures to occur.

1.1. Early detection of scalability regression with the Stacktical predictive engine

The objective of reliability testing is to verify that a release candidate meets the application's Service Level Objectives (SLO). They are Key Performance Indicators that lets you know if a proposed change in code or configuration is suitable for production deployment.

Stacktical was originally developed to streamline that verification process using predictive technologies. It would proactively protect production systems by rejecting release candidates that don't meet certain performance requirements, without impacting the speed of developments.

By applying predictive mathematical models inherited from Performance Theory to load tests, Stacktical is able to significantly decrease their duration, while also surfacing scalability insights that are barely within the realm of human interpretation.

Archived copy · cryp2nova.com

A prediction-driven modeling of their systems performance encourages service providers to more proactively bust scalability bottlenecks and prevent performance failures, instead of simply reacting to them with subpar efficiency.

Until now, the main driving force behind our execution as a company had been our ambition to automate service providers out of the work of managing scalability regressions. Through sheer prediction.

1.2. The scalability of Cloud applications

Scalability is a state of equal bang for your hosting buck.

The capacity of your Cloud infrastructure—the maximum number of concurrent users and transactions per second it can handle—should increase proportionally to the computing resources you add to it.

In practice though, a service provider will not be able to handle twice the transactions per second by simply doubling the number of Cloud instances (servers) in its infrastructure.

As a system reaches its peak capacity, throwing computing resources at non-scalable code and configuration will only boost the application performance to some extent before it starts retrograding, while also incurring an increasingly severe waste of capital.

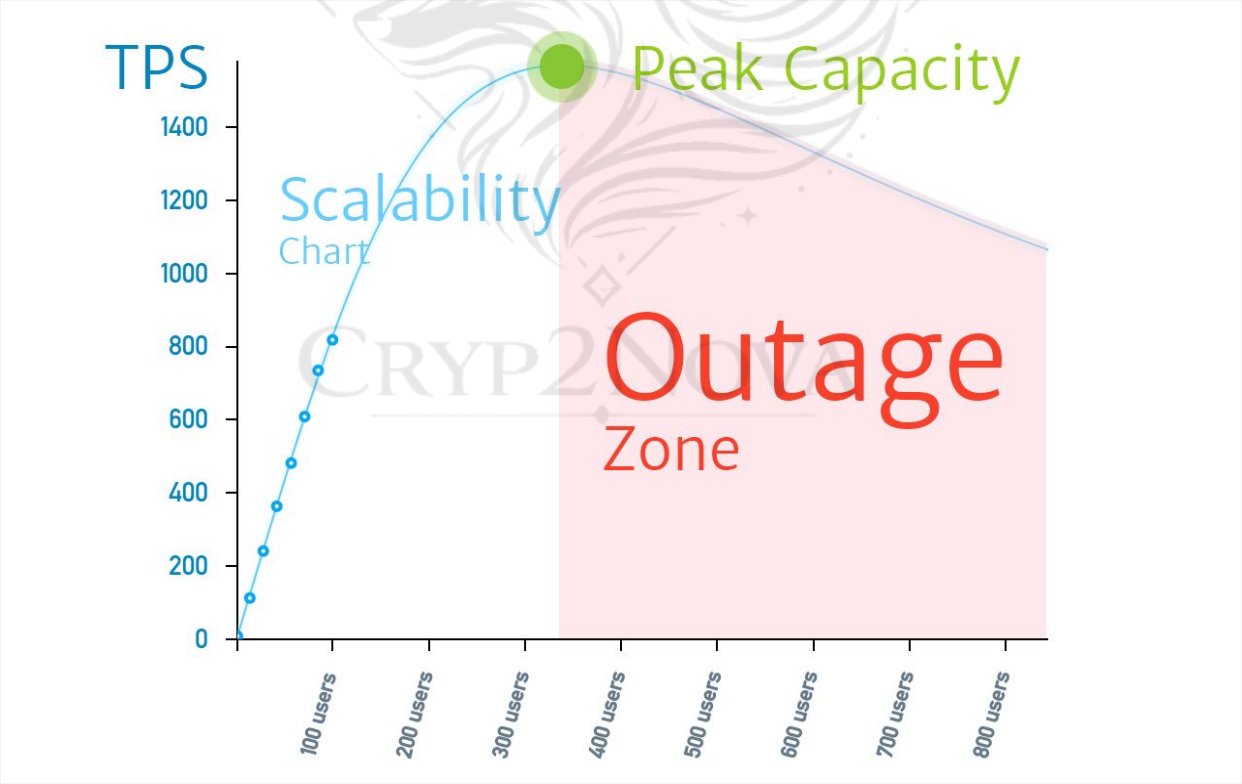


Fig. 1a - A scalability prediction chart. Performance sharply declines when the system reaches its peak

Archived copy · cryp2nova.com

capacity at 338 concurrent users and 1568 transactions per second.

This makes the peak capacity the single most important metric of scalability, and stresses the fact that scalability can't be an afterthought and should be closer to the Software Development Lifecycle.

In hindsight, scalability is first and foremost the product of how a cloud application is engineered to efficiently use its cloud servers and continuously push peak capacity metrics to new heights as the audience grows.

Whenever engineering teams lack visibility on the peak capacity of their production application, it becomes very difficult to stick to any of the following capacity plans:

Capacity plan	Resource availability	Elasticity
Excess capacity	unlimited / capped	yes / no
Adapt traffic to capacity	capped	no
Adapt capacity to traffic	unlimited	yes
Fixed capacity	capped	no

1.3. The scalability of Blockchain applications

When we illustrate the scalability problem of blockchain platforms using transactions per second measurements, we are both talking about the different scales of usage of a given blockchain platform, and the blockchain platform peak capacity in terms of transactions per second (TPS).

Because current platforms have an arguably low peak TPS, there is still very little scales of usage for decentralized apps.

Transaction-heavy use cases such as social networking services have yet to be decentralized on the blockchain: the existing platforms simply cannot meet their performance requirements at the moment. That's not saying now is not the time to develop social dApps, since progress is being made on the peak capacity of blockchain platforms everyday.

As a service limited by the scalability of both cloud native and decentralized blockchain platforms, cryptocurrency exchanges are the embodiment of the challenge of ensuring the scalability of online services.

Binance.com, for example, must not only be able to sustain several hundred thousand registrations per day, but they are also affected by the scalability bottlenecks of the Blockchain platforms they support.

---

2. Testing the performance of Cloud-based applications

Archived copy · cryp2nova.com

For most service providers, there's an obvious tension between shipping software as fast as possible and investing in testing the performance, capacity and scalability of each and every software release candidate or pull request.

As a result, many providers end up favouring reactive performance monitoring strategies over proactive load testing when it comes to engineering the reliability of their infrastructure.

Strategy	Solution	Tool
Reduce Mean Time To Repair (MTTR)	Application Performance Monitoring (APM)	New Relic, Datadog
Increase Mean Time Between Failure (MTBF)	Load Testing Tool	HP LoadRunner, JMeter

But what if you could reap the benefits of load testing without impacting the velocity of developments ?

2.1. Making load testing smarter

2.1.1 Accelerating load testing and increasing test coverage with predictions

For decades, researchers have established mathematical relationships between performance metrics and created models that help predict their evolution, as the utilization of the application increases.

Stacktical is a turn-key solution to apply these predictive models to the performance metrics collected by providers as they develop and operate their applications. As a result, they have an easier time packing a maximum of load tests in a fast-paced Continuous Integration environment, without impacting the speed of developments.

2.1.2 Automating the interpretation of load testing results into SLO

In the following Fig. 2a example, Stacktical tries to fit a small sample of 8 load test results into a predictive model called the Universal Scalability Law (USL).

The model enables us to instantly calculate the peak capacity of the tested application, chart its scalability and quantify how much execution time is wasted on the contention and coherence bottlenecks of its underlying hardware, software and configuration components.

It uses a non-linear regression between the number of concurrent users involved in the load test scenario and the corresponding number of transactions per second sustained by the application.

The mathematical coefficients resulting from the non-linear regression of these two system metrics enable the Stacktical engine to predict the remaining data points in the scalability chart, while also quantifying the penalties that make the chart dip when the application reaches its peak capacity.

Archived copy · cryp2nova.com

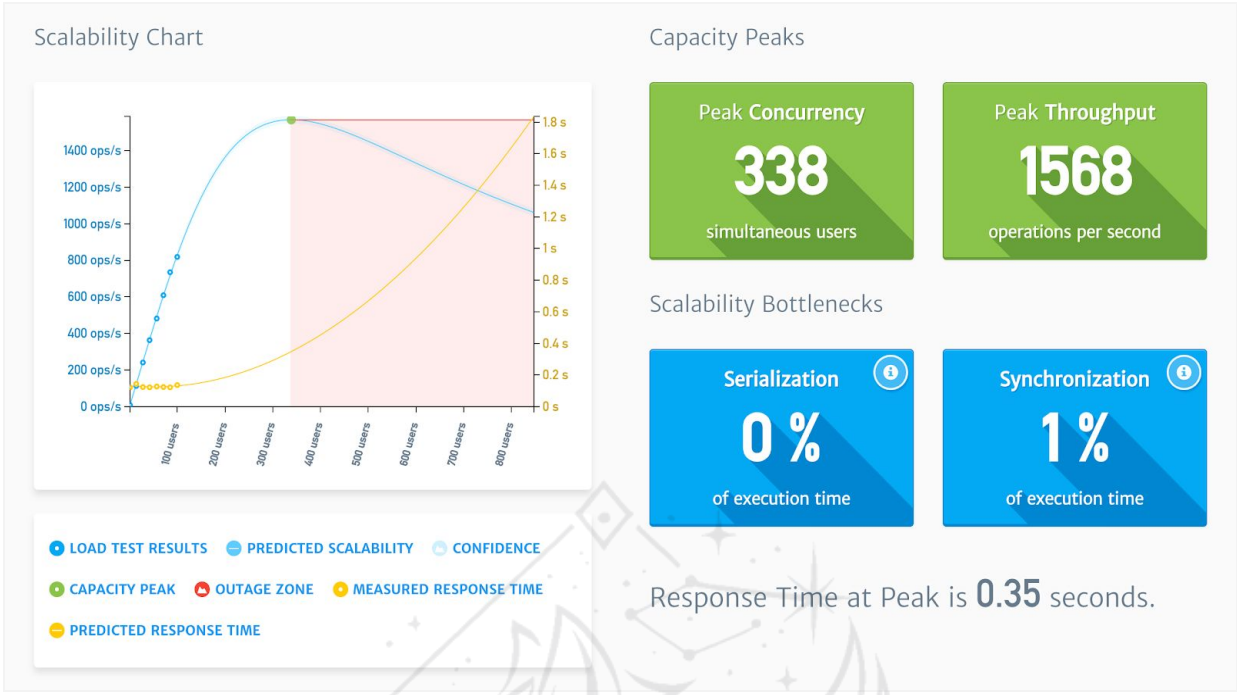


Fig. 2a - The scalability report of our staging Stacktical application

Along with USL, we are using Little's Law to chart the application response time as the load increases and surface the "Response Time at Peak" insight. You also can see that there's no optimization needed for this test scenario, based on quantified scalability bottlenecks.

Even after days of analysis, a software engineer would not be able to surface these scalability insights from the input test results. Let alone use them as SLO.

They can now rely on pre-analyzed data to justify the safe delivery of changes to the production environment.

CRYP2NOVA

2.1.3 Sharing SLO with internal stakeholders

Because scalability bottlenecks undermine the success of various strategic initiatives in the organization, we have designed scalability reports to be shared with anybody and speak a language all application stakeholders can understand.

On top of these two fundamental pillars, our team is engineering social interactions that will further empower individuals to act collectively on SLO, and ultimately improve the profitability of the organization's online services.

Archived copy · cryp2nova.com

3. Managing service levels

Since failures can never be completely eliminated, defining SLO to ensure the reliability of applications is only part of the customer success equation.

After working for 2 years on streamlining the definition and measurement of SLO, we realized something simple: the only infallible prediction our team could ever make is that no engineer can prevent online services from eventually going down.

As a service provider, along with great load testing practices, it is also important to offer guarantees on the performance customers can expect from the service they are paying for, and establish protocols on fair ways to settle disputes in non-performance situations.

Service Level Agreements (SLA) provide a legally-binding framework that aims at defining and enforcing those Quality of Service requirements.

But do SLA fulfill their original mission and are they able to meet the expectations of all application stakeholders with regards to performance events?

3.1. Traditional service level management practices are broken

In a world where the general public rarely reads the terms they agree to, providers are not particularly keen on defining fair service level agreements.

However, when users do care about offloading the risks associated with poor service levels—as they most likely undermine the profitability of their own organization—they invest such a significant amount of time, operating expenditures and legal fees bridging the gap between their expectations and SLA policies that it mathematically defies the purpose of seeking compensation for future performance failures.

It is not just the unilateral nature of SLA policies or the unnecessary difficulty of negotiating policies. Overall, the sheer inefficiency of SLA at every step of its life cycle hints at major flaws that are yet to be addressed.

3.1.1. Defining Service Level Agreements

To be able to agree on service levels, stakeholders need to agree on the performance, capacity and scalability metrics that will serve as a basis for enforcing SLA and handling violations.

The complexity in defining, measuring SLO through performance testing practices makes it equally complex to define meaningful agreements.

3.1.2 Negotiating Service Level Agreements

Archived copy · cryp2nova.com

Because no stakeholder other than the provider herself is responsible for the definition of service level policies, it is hard for Service Level Agreements not to be favouring the provider herself instead of aligning the interests of all application stakeholders.

During negotiation, agreement can only be challenged by users to an extent. The more users want policies to meet their expectations, the more skills and resources must be poured into planning, discussion and legal overhead.

3.1.3 Monitoring Service Level Agreements

Most implementations of Service Level Agreement are not fine-grained enough to take all failure severity into consideration. While Application Performance Monitoring platforms provide service providers with real-time surveillance of their online services, this data isn't used to monitor violations.

Some providers even require users to bring demonstrable proof that the outage has negatively impacted their operations in order to initiate the enforcement of agreements.

3.1.4 Enforcing Service Level Agreements

In the event of a production outage and considering its resulting downtime, users entitled to remedies are forced to proactively ask for a compensation that'll only be effective weeks, if not months after the event.

Since the variety of outages and their business impact can hardly be anticipated and estimated, providers can only go as far as partial refunds of capital expenditures. To further mitigate the loss incurred with the non-performance situation, users must rely on insurance companies, further adding complexity to an already-complex process.

3.2. Reinventing Service Level Management with Stacktical

By using the blockchain to remove the intermediaries involved in Service Level Management, Stacktical aims at radically simplifying the definition, negotiation, monitoring and enforcement of Service Level Agreements, while continuously aligning the interests of all application stakeholders.

Combined with user experiences that bridge the gap between performance modeling techniques, user expectations of the provider's performance and release management practices, Stacktical becomes a high-efficiency, Decentralized Service Level Management framework that can fulfil the original mission of SLA with much less trade-offs, if any.

3.2.1. Streamlining the bilateral bargaining of Service Level Agreements policies

The definition and negotiation stages of the Service Level Agreement lifecycle are in dire need of a better user experience and more tangible performance data.

Archived copy · cryp2nova.com

Framing the issue of performance, capacity and scalability with a legal answer has delayed, if not prevented compelling software and service level management solutions from appearing on the market.

As a company, and following our tradition of stakeholder empowerment, we intend to distribute the first, truly participative Service Level Agreement modeling platform.

Since all stakeholders will have access to the scalability insights generated by our predictive load test wrapper, bargaining policies will be data-driven instead of being motivated by the provider's need to protect itself, or the sole client expectations of how the service should perform.

3.2.2. Service Level Agreements as Smart Contracts

Smart Contracts on the blockchain are programmable, self-executing digital contracts that facilitate, verify, and execute the terms of a given agreement between users on the blockchain. They are responsible for accessing and storing public, decentralized data of different nature.

Because nobody owns or can tamper with that data, everybody can trust it.

Applied to Service Level Management, Smart Contracts will enable stakeholders to automate and externalize the efforts involved in establishing and enforcing Service Level Agreements.

Smart SLA will automate the settlement of service level violations.

Our Decentralized SLM MVP will be based off the industry-leading Ethereum blockchain platform.

3.2.3. Business-to-Many Service Level Agreements

SLAs have always been reserved to a certain type of stakeholders, essentially businesses.

Capitalizing on the benefits of a public Blockchain platform and its ability to automate the enforcement of Decentralized Service Level Agreements, Stacktical moves away from the traditional business-to-business context of such agreement and makes it possible to incentivize all application stakeholders based on service levels.

It is the very first business-to-many variation of the framework ever created and a true reflection of our belief that all users are possibly entitled to compensation in the fact of performance failures of a service they use.

Whether it is an application you pay for or one that you use for free.

3.2.4. Oracle-based Service Level Agreements Monitoring

To trigger the enforcement of SLA, the Stacktical platform must be able to detect performance failures and communicate that information to the Smart Contracts responsible for compensating users. As

Archived copy · cryp2nova.com

Application Performance Monitoring metrics are not part of the blockchain network, it needs to be sourced elsewhere, from the offchain world.

Oracles are gateway services that connect the blockchain with other data available on the Internet and the physical world.

We plan on using a decentralized network of Oracles to collect close to real time performance metrics from a variety of analytics sources.

During our internal workshops, a decentralized and distributed pinging system has emerged as a viable first implementation of Oracle-based uptime monitoring in the Stacktical platform.

In parallel with our own implementation of Oracles, we will be closely monitoring emerging Oracle Management Systems to see if they provide a level of decentralization and trust compatible with our specific monitoring needs.

We will also explore the possibilities of sourcing metrics from our customers Application Performance Monitoring platforms.

Along with detection-focused Oracles, Stacktical will use a combination of application performance, customer service and user behaviour Oracles to compute the DSLA token compensation formula used by our Smart Contracts.

Our Oracles-based architecture won't necessarily be server-based as achieving a client-side form of consensus is a possible way to engineer a viable solution involving unbiased stakeholders.

---

4. Introducing the DSLA token

The Stacktical platform is powered by DSLA the Decentralized Service Level Agreement utility token.

It gives users the ability to:

- Access the Stacktical platform
- Run scalability predictions
- Form compensation pools
- Publish Decentralized Service Level Agreements
- Indemnify users upon performance failures
- Reward support teams upon performance achievements

4.1.1. Compensating internal and external application stakeholders

Archived copy · cryp2nova.com

Using DSLA tokens and the Decentralized Service Level Agreements of the Stacktical platform, companies can automatically indemnify their customers for performance failures, while rewarding their support teams for operational excellence.

Stakeholder	Performance Event	Incentive
User	Service.com has been down for n hours	DSLA Compensation
Integration partner	API endpoint performance has dropped 50% for the past n days	DSLA Compensation
Provider	Service.com has been up for n days	DSLA Reward
Provider	Scalability insights are accessible online	DSLA Reward

4.1.2. A Circular Economy of Indemnities and Rewards

A Circular Economy is a regenerative system in which waste become capital.

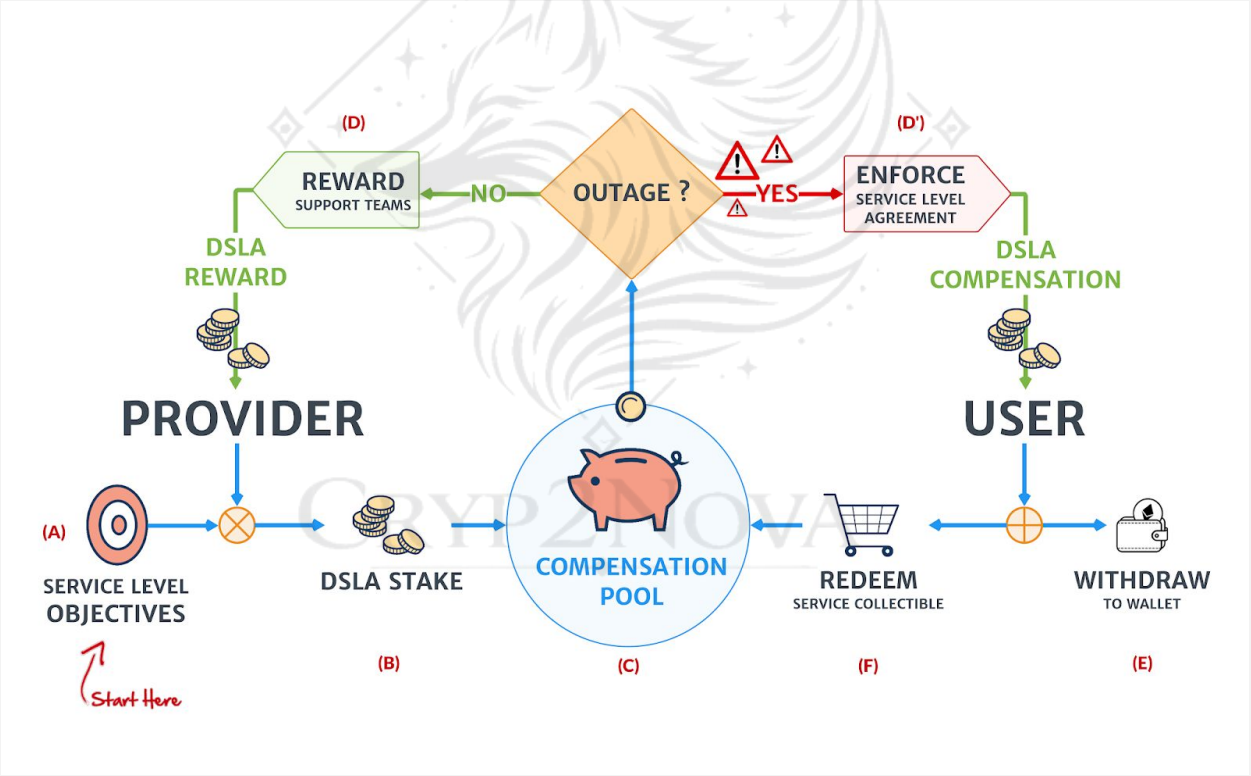


Fig. 4b - The Stacktical Circular Economy

The Stacktical platform and the DSLA token are designed to align the interests of all application stakeholders, in performance and non performance situations.

Archived copy · cryp2nova.com

The provider starts by defining service level objectives **(A)** and stake DSLA tokens **(B)** to form a compensation pool **(C)**.

The compensation pool is depleted according to good service levels **(D)** and bad service levels **(D')**.

Token owners can either withdraw the DSLA they received as compensation to their ERC-20 compatible wallet **(E)** or exchange them for promotional offers, loot and other service collectibles in the Stacktical marketplace **(F)**.

All tokens exchanged on the Stacktical marketplace return to the compensation pool **(C)**, ready to handle the next performance failure.

4.2. The DSLA Token Sale

4.2.1. Token sheet

We are selling **5,000,000,000 (5B)** DSLA tokens in exchange for at least **€1M or 7200 ETH (Soft Cap)**.

Technology
ERC-20

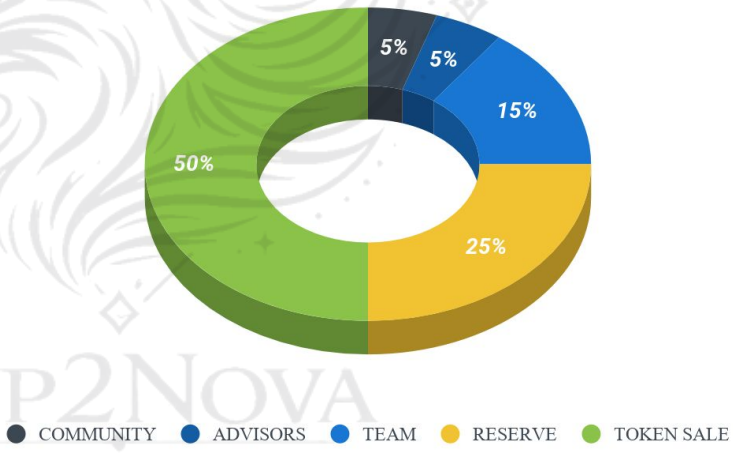
Max Token Supply
10,000,000,000 DSLA

Available for Purchase
5,000,000,000 DSLA

Accepted Currency
FIAT, ETH & Other in Private Sale
ETH only in other rounds

Soft Cap / Hard Cap
€1M / €3M
7200 ETH / 17200 ETH

Initial Rate
1 DSLA = 0.0000040 ETH
1 ETH = 250K DSLA



Update (April 1st, 2019)

2,620,881,581.92 unsold DSLA tokens have been processed as the following :

- 1,000,000,000.00 DSLA were burned
- 1,121,000,000.00 DSLA went to the reserve pool
- 500,000,000.00 DSLA went to the team pool

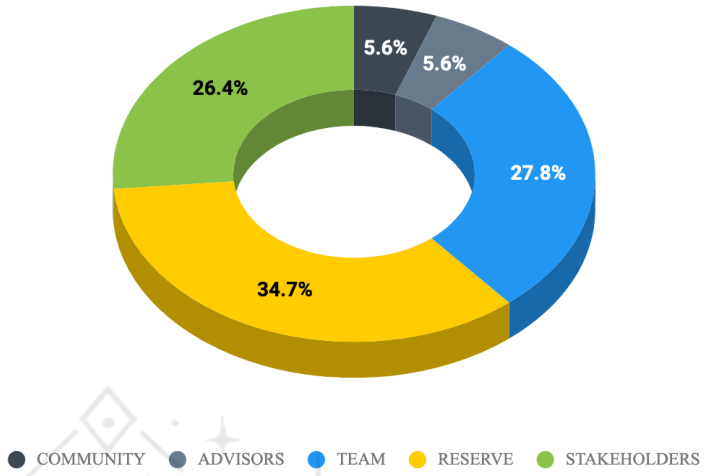
Here is the corresponding, updated token sheet :

Archived copy · cryp2nova.com

Technology
ERC-20

Total Supply
9,000,000,000 DSLA

Circulating Supply
9,000,000,000 DSLA



4.2.3. Use of Reserve

The DSLA token reserve is used to onboard new customers to the Stacktical Platform and address operating expenditures such as exchange listing fees.

4.2.2. Key dates and participation

Key Dates (Central European Time)	**Discount**	**1 DSLA =**	**Min Contrib.**	**Max Contrib.**
Private Sale Until October 31st	40%	0.0000024 ETH	3 ETH	600 ETH
Pre Sale From November 1st, 2018 to December 31st, 2018	20%	0.0000032 ETH	12 ETH	5000 ETH
Public Sale From January 15th, 2019 to March 31st, 2019	0%	0.0000040 ETH	3 ETH	29 ETH

The soft and hard caps of the DSLA token sale have been engineered around a 3 years forecast of the project's expenditures.

Archived copy · cryp2nova.com

4.2.3. Vesting Schedule

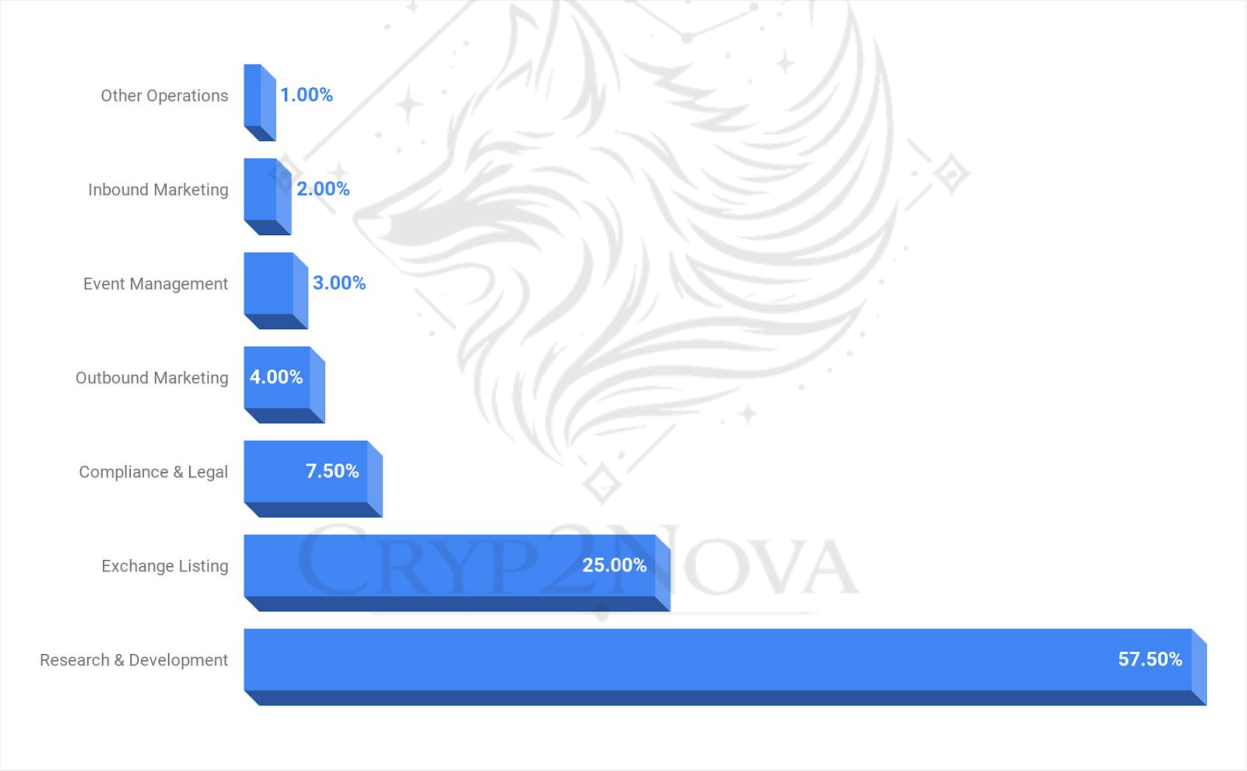
- Private sale contributors will instantly receive 25% of the DSLA tokens they are entitled to.
- Pre sale contributors will instantly receive 50% of the DSLA tokens they are entitled to.
- Public sale contributors will instantly receive 75% of the DSLA tokens they are entitled to.

The remaining 25% chunks will be claimable every quarter starting April 1st, 2019, directly from the DSLA token sale dashboard.

Update (October 1st, 2019): Are DSLA tokens can now be claimable by DSLA Token Sale participants.

4.2.4. Use of Proceeds

The soft and hard caps of the DSLA token sale have been engineered around a 3 years forecast of the project's expenditures.



5. Roadmap

Date	Milestone
Q1 2016	Data Science prototype: a script able to predict the scalability of a system using load test results

Archived copy · cryp2nova.com

Q3 2016	Stacktical SLO β : a website enabling users to define Service Level Objectives using Data Science
Q2 2017	Incorporation of the Stacktical SAS company in Paris, France
Q3 2017	Stacktical v1.0: 1st official of Stacktical, a predictive scalability regression testing platform
Q3 2018	DSLA Token Generation Event
Q2 2019	DSLA Network β : a platform enabling companies to manage Service Level Objectives & Agreements
Q2 2020	DSLA Network v1.0: a fully-fledged Decentralized Service Level Management platform

---

6. Team

6.1. Team



Wilhem Pujar
Co-founder and CEO
Senior Product Manager & Blockchain dApp Engineer
Ex Infrastructure Architect @ France Télévisions
Resume



Jean Daniel Bussy
Co-founder and CTO
Senior Cloud & Blockchain Architect
Ex Senior Cloud Architect at GREE
Resume



Yosra Helal
Blockchain Engineer
Smart Contract Developer & Auditor
Resume



Aurélie Kando
Operations & Legal Officer
Resume

CRYP2NOVA

Archived copy · cryp2nova.com

6.3. Advisors



Aymen El Amri
Advisor
Senior Cloud & Software Architect
Author, Founder at Faun.dev, Eralabs
Resume



Una Softic
Advisor
Innovation Consultant at Nikkei
International Business Development & Marketing
Resume

6.4. Partners

BOLD
Law Firm
http://wearebold.co

XYO
Geospatial Data Broker
https://xyo.network

CRYP2NOVA

Archived copy · cryp2nova.com

eralabs
Cloud Engineering
https://eralabs.io

DevOpsLinks
The DevOps Community
https://faun.dev

BPI France
France's Public Investment Bank
https://www.bpifrance.fr

SmartHab / HAB Platform
The Black Box for Smart cities
http://www.smarthab.fr/en/home/
https://hab.global

La French Tech
The french tech ecosystem

CRYP2NOVA

Archived copy · cryp2nova.com

7. Conclusion

In this paper, we have seen the current limitations and poor efficiency in framing the issue of performance, capacity and scalability using legal answers.

We have discovered how Stacktical works on both reducing performance failures and managing non-performance situations using data science and blockchain technologies.

As an infrastructure solution to an infrastructure problem, Stacktical can finally fulfill the original mission of the service level agreements framework: establishing and enforcing data-driven, fair policies that really mitigate non-performance situations for all application stakeholders and break the irrelevant tradition of offloading risk by pointing accusing fingers.

Archived copy · cryp2nova.com

References

Neil J. Gunther, “Guerrilla Capacity Planning: A Tactical Approach to Planning for Highly Scalable Applications and Services”, Springer, Heidelberg, Germany, 1st edition, 2007.

Neil J. Gunther, “A general theory of computational scalability based on rational functions”, 2008.

Baron Schwartz, “Practical Scalability Analysis With The Universal Scalability Law”, 2015.

S. Nakamoto, “Bitcoin: a peer-to-peer electronic cash system.”, 2008.

V. Buterin, “A next generation smart contract and decentralized application platform”, 2013.

K. Boukadi, R. Grati, and H. Ben-Abdallah, “Toward the automation of a QoS-driven SLA establishment in the Cloud,” Service Oriented Computing and Applications”, 2015.

H. P. Borges, J. N. de Souza, B. Schulze, and A. R. Mury, “Automatic services instantiation based on a process specification,” Journal of Network and Computer Applications”, 2014

I. Kafeza, E. Kafeza, and E. Panas, “Contracts in cloud computing”, in 2014 IEEE International Conference on Cloud Computing in Emerging Markets (CCEM), 2014.

M. Macias and J. Guitart, “SLA negotiation and enforcement policies for revenue maximization and client classification in cloud providers”, Future Generation Computer Systems, 2014.

K. Lu, R. Yahyapour, P. Wieder, E. Yaqub, M. Abdullah, B. Schloer, and C. Kotsokalis, “Fault-tolerant service level agreement lifecycle management in clouds using actor system”, Future Generation Computer Systems, 2016.

A. Amato and S. Venticinque, “Modelling, design and evaluation of multi-objective cloud brokering”, International Journal of Web and Grid Services, 2015.

M. Alhamad, T. Dillon, and E. Chang, “Service level agreement for distributed services: A review”, in 2011 IEEE Ninth International Conference on Dependable, Autonomic and Secure Computing, 2011.

M. Alhamad, T. Dillon, and E. Chang, “Sla-based trust model for cloud computing”, in 2010 13th International Conference on Network-Based Information Systems, 2016.

S. Anithakumari and K. Chandrasekaran, “Negotiation and monitoring of service level agreements in cloud computing services” in Proceedings of the International Conference on Data Engineering and Communication Technology, ser. Advances in Intelligent Systems and Computing. Springer Nature, 2016.

F. Alrebeish and R. Bahsoon, “Implementing design diversity using portfolio thinking to dynamically and adaptively manage the allocation of web services in the cloud,” IEEE Transactio@ns on Cloud Computing, 2015.

A. S and C. K, “Monitoring and management of service level agreements in cloud computing,” in 2015 International Conference on Cloud and Autonomic Computing.

Ellen MacArthur, “The Circular Economy Imperative”, 2016

The ITIL Process Map & ITIL Wiki

CRYP2NOVA

Archived copy · cryp2nova.com

LEGAL INFORMATION

These Terms and Conditions apply automatically to all DSLA Tokens potential purchasers within the framework of the Stacktical Token Sale. All DSLA Tokens purchasers acknowledge and accept all following provisions and to all additional provisions available on Stacktical website (www.stacktical.com) (the "**Website**") (the "**T&C**").

By adhering to these T&C, the DSLA Tokens purchaser expressly acknowledges having head and understood the White Paper, Stacktical Project and been comprehensively informed about the risks arising from it.

Any DSLA Tokens purchaser is deemed to be fully aware of all the legal norms and technical constraints relating to the purchase, possession, functionality, use, storage, transmission, mechanisms and complexity associated with tokens and cryptocurrencies based on blockchain technologies and to the services that Stacktical Platform intends to offer.

While Stacktical team will do its utmost to launch the Stacktical Project, DSLA Tokens purchasers expressly acknowledge the random nature of the Stacktical Project as presented in this document and that this project may not come to fruition or may have to be abandoned due to technical, legal or regulatory constraints, without the DSLA Tokens being issued or used on the Stacktical Platform.

If a DSLA Tokens potential purchaser does not accept to abide by all the provisions of the present White Paper or does not understand all or parts of it, he should not purchase any of the DSLA Tokens, either during the Token Sale or after.

The White Paper does not provide any information susceptible to constitute a basis for an investment decision, and no specific investment recommendation is made. Accordingly, this White Paper does not constitute an offer or an invitation to purchase shares, securities or rights belonging to Stacktical or to any related or associated company, (ii) nor investment advice in any security or financial instrument of any nature whatsoever.

Stacktical expressly disclaims any liability for any direct or indirect loss or damage of any kind arising directly or indirectly from:

- any reliance on the information contained in this White Paper;
- any error, omission or inaccuracy in said information; or
- any resulting action that may be brought.

The Stacktical Project is still at an early stage of its development at the date of this White Paper. Its business model, smart contract, software, blockchain technology, consensus mechanism, algorithm, code, infrastructure design, other technical, legal and business specifications and parameters may be updated frequently without notice.

DSLA Tokens purchasers agree not to use the Website, the issued tokens and, more generally, any content or service provided to him by Stacktical that does not comply with the T&C herein.

ARTICLE 2 – PARTICIPATION IN THE STACKTICAL TOKEN SALE

1. Profile of the Stacktical Token Sale participants

Participation in the Stacktical Token Sale is limited to natural persons over 18 years' old or legal persons with full capacity to contract.

Any purchaser of DSLA Tokens shall understand and have significant experience of cryptocurrencies, blockchain systems and services, and shall understand the risks associated with the crowdsale as well as the mechanisms related to the use of cryptocurrencies (including the storage).

Each participant shall carefully review the White Paper so to understand the risks, costs and benefits associated with the purchase, storage and use of DSLA.

2. Citizenship and location of Stacktical Token Sale participants

Archived copy · cryp2nova.com

Documents linked to the Stacktical Token Sale, such as this White Paper or the Stacktical One Pager available on the Website, may not be transmitted or distributed to "U.S. citizen", Bahamas, Botswana, Canada, China, Cuba, Democratic People's Republic of Korea (DPRK), Ethiopia, Ghana, Iran, Iraq, Pakistan, Serbia, Sri Lanka, Sudan, Syria, Trinidad and Tobago, Tunisia or Yemen citizen, or to mail or email addresses in the Bahamas, Botswana, Canada, China, Cuba, Democratic People's Republic of Korea (DPRK), Ethiopia, Ghana, Iran, Iraq, Pakistan, Serbia, Sri Lanka, Sudan, Syria, Trinidad and Tobago, Tunisia, United States of America or Yemen.

It is prohibited to transmit, distribute or reproduce documents linked to the Stacktical Token Sale to or for a "U.S. citizen" or within the territories of the Bahamas, Botswana, Canada, China, Cuba, Democratic People's Republic of Korea (DPRK), Ethiopia, Ghana, Iran, Iraq, Pakistan, Serbia, Sri Lanka, Syria, Trinidad and Tobago, Tunisia, United States of America or Yemen.

To ensure their eligibility for the purchase of DSLA Tokens, all DSLA Tokens purchaser expressly declare that they are not a Bahamas, Botswana, Canada, China, Cuba, Democratic People's Republic of Korea (DPRK), Ethiopia, Ghana, Iran, Iraq, Pakistan, Serbia, Sri Lanka, Sudan, Syria, Trinidad and Tobago, Tunisia, Yemen citizen or "U.S. citizen" (within the meaning of "Regulation S" of the Securities Act 1933 under U.S. law), this term being understood as covering:

- any private individual resident in the United States of America;
- any partnership or business organized or established under U.S. law;
- any property of which the executor or administrator is a U.S. citizen;
- any trust of which a proxy is an American citizen;
- any agency or branch of a foreign entity located in the United States of America;
- any non-discretionary account or similar account (other than a trust or property) held by a trader or other trustee for the benefit of or on behalf of a U.S. citizen;
- any discretionary account or similar account (other than a trust or trust) held by a trader or other trustee, that is organized, established or (if a private individual) resident in the United States of America; and
- any partnership or company if:
    - it is organized or established under the law of a foreign jurisdiction; and
    - it is formed by a U.S. citizen primarily for the purpose of investing in securities not listed under the U.S. Securities Act, unless it is organized or established, and owned, by accredited Backers who are not private individuals, trusts or properties.

More generally, potential DSLA Tokens purchasers authorized to participate to the Stacktical Token Sale shall warrant, represent and agree that they are not a citizen, tax or permanent resident of a country where the purchase of cryptographic tokens under the Stacktical Token Sale is prohibited, restricted or requires registrations of any kind (the "**Authorized Purchasers**").

3. Conditions to respect for Stacktical Token Sale participants

Any DSLA Tokens purchaser is solely liable for determining which legal, accounting, financial and fiscal conditions of any nature he is required to comply with in order to participate to the Stacktical Token Sale, in accordance with the laws and regulations applicable in his country of residence.

Stacktical may not be held liable for DSLA Tokens purchaser's filing obligations in the country in which he is domiciled. Each DSLA Tokens purchaser shall take full responsibilities to declare, bear and pay all such taxes, duties, imposts, leviers, tariffs and surcharges that might be imposed by the laws and regulations of any jurisdiction as a result of or in connection with the receipt, holding, use, purchase, appreciation, trading, remittance or disposal of DSLA Tokens (no matter whether purchased during the Stacktical Token Sale or otherwise acquired).

Each DSLA Tokens purchaser shall be solely liable for all such penal consequences, claims, fines, penalties, liabilities or otherwise arising from his underpayment, undue payment, belated payment or non-payment of any relevant tax. Stacktical does not give any advice on tax related matters and makes no representation as to the tax implication, if any, of any DSLA Tokens purchaser's participation in the Stacktical Token Sale. It is the responsibility of each DSLA Tokens purchaser to consult his tax advisors before purchasing DSLA Tokens during and after the Stacktical Token Sale.

4. KYC Procedure and contribution process

Only Authorized Purchasers are allowed to participate to Stacktical Token Sale. In cases where Stacktical team discovers that the

Archived copy · cryp2nova.com

purchase of DSLA Tokens by any DSLA Tokens purchaser violate any applicable regulatory requirements, including but not limited to anti-money laundering and counter-terrorism financing, such purchase shall be deemed invalid with retroactive effect. The Stacktical team reserves the rights to immediately deny the relevant person's ability to participate in the Stacktical Token Sale, cancel delivery of any DSLA Tokens and request full return of any DSLA Tokens that has already been delivered. Such actions will be irrespective of any contribution that could have been made by that DSLA Tokens Purchaser.

Stacktical team reserves the right to reject any contribution at its absolute discretion. The "Know Your Customer" (KYC) procedure is instrumental in the prevention against money laundering and terrorist financing.[LY2]

In order to complete the Stacktical Tokens Sale KYC and AML verifications, Authorized Purchasers are required to:

- Register on the Website; and
- Submit all the following information as instructed:
    - For a natural person (acting within the scope of his professional activities):
        - First name and Last name;
        - Date and place of birth;
        - Nationality;
        - Current address/registered address;
        - Country of tax residency and residential address;
        - Email address;
        - Copy of the DSLA Tokens purchaser passport or ID card;
        - Photo of the DSLA Tokens purchaser appearing near his registered passport or ID card;
        - Address from which the funds will be disbursed;
        - Origin of the funds Declaration; and
        - Non-politically exposed person declaration.
    - For a legal person:
        - Organizational/Company name;
        - Headquarters registered address;
        - Scan of business license;
        - Tax identification number;
        - Address from which the funds will be disbursed;
        - Legal representative First name and Last name;
        - Legal representative copy of passport or ID card;
        - Legal representative non-politically exposed person Declaration; and
        - Photo of the legal representative appearing near his registered passport or ID card.

This information will be processed, only for the purpose of the KYC/AML verification procedure by Onfido Limited, a company incorporated and registered in England and Wales with company number 07479524 whose registered office is at 3 Finsbury Avenue, London EC2M 2PA, United Kingdom.

DSLA Tokens purchasers shall then, directly on the Website or by any other equivalent mean:

- declare that he is not a Bahamas, Botswana, Canada, China, Cuba, Democratic People's Republic of Korea (DPRK), Ethiopia, Ghana, Iran, Iraq, Pakistan, Serbia, Sri Lanka, Sudan, Syria, Trinidad and Tobago, Tunisia or Yemen citizen nor a "U.S. person" or "U.S. citizen" (within the meaning of "Regulation S" of the Securities Act 1933 under U.S. law);
- tick the box "I HEREBY CERTIFY THAT I HAVE READ, UNDERSTOOD AND EXPRESSLY ACCEPT STACKTICAL WHITE PAPER PROVISIONS AND TERMS AND CONDITIONS";
- tick the box "I HEREBY CERTIFY THAT I PURCHASE DSLA TOKENS IN ORDER TO HAVE ACCESS TO THE STACKTICAL PLATFORM AND NOT FOR THE PURPOSE OF REALIZING ANY SPECULATIVE INVESTMENT"
- provide the ETH public address with which he will realize his contribution;
- provide the amount of their contribution in ETH

Each step needs to be followed and complied with by all Authorized Purchasers for them to get whitelisted by Stacktical team and conformity partners (the "**Whitelisted Purchasers**").

DSLA Tokens cannot be mobilized or transferred to the Authorized Purchaser wallet until:

- the tokens are unlocked as a result of successfully reaching the minimum required subscription threshold; and

Archived copy · cryp2nova.com

- when all KYC and AML verifications are deemed to be satisfied by the Stacktical team if required; whichever is later.

Depending on the accuracy and the nature of the information provided, Stacktical may request additional information and/or documents to evidence identity or source of funds. If the participant refuses to provide such additional information or documents, Stacktical team may, at its sole discretion, refuse the DSLA Tokens' purchasers contribution and may not be held liable for such refusal.

Once KYC and AML verifications are satisfied, Authorized Purchasers are whitelisted and get the possibility to subscribe to Stacktical Tokens Sale by transferring ETH or EUR to the address as announced onto the Website.

ARTICLE 3 – DSLA TOKENS CHARACTERISTICS

Although DSLA Tokens may grant certain functionalities or utilities relating to Decentralized Service Level Agreements, they are not and shall in no case be understood, deemed, interpreted or construed as:

- any kind of money: regardless whether fiat or non-fiat currency;
- any security or any financial instrument: A DSLA token does not grant any right to participate to the control of Stacktical's management or to the decisions of its shareholders, or over the Platform and does not grant any financial rights onto Stacktical financial results. Therefore, DSLA Tokens purchasers accept and acknowledge that these DSLA Tokens do not entitle their owners to participate in any decision or vote within Stacktical, to benefit from Stacktical's results, or to derive any economic or other gain from Stacktical;
- any kind of investment in equity or debt form in any venture;
- an instrument that participates in any gross or net profits;
- any type of financial derivatives or interest in collective investment scheme;
- any negotiable instrument (such as commercial paper);
- any form of investment contract (including future contract) between the holder and any other person or entity;
- any asset or commodity that any person or entity is obliged to repurchase or redeem;
- any debenture, loan stock, fund, bond, note, warrant or other instrument that entitles the holder to any kind of dividend, interest payment or any kind of return from any person;
- any electronic currency: DSLA Tokens are not accepted outside the Stacktical network and a DSLA Token does not have a fixed exchange value equal to the amount delivered at the time of its issue. Therefore, within the meaning of EU Directive 2009/110/EC of the European Parliament and of the Council of 16 September 2009 on the taking up, pursuit and prudential supervision of the business of electronic money institutions, DSLA Token is not an electronic currency;
- any mean of payment: Stacktical Tokens Sale does not involve the purchase, and, or, sale of cryptocurrencies and Stacktical's business does not consist in receiving currencies against the delivery of cryptocurrencies. As such, DSLA Token is not a mean of payment within the meaning of EU Directive (2007/64/EC) of 13 November 2007 relating to payment services in the internal market, nor within the meaning of the (EU) Directive relating to payment services 2 (DSP 2) N° 2015/2366 of the European Parliament and of the Council of 25 November 2015;
- any option, right or interest in any of the above.

DSLA Tokens shall be considered as cryptographic tokens used by the Platform. DSLA Tokens are cryptographic tokens, i.e. an unregulated digital asset issued and controlled by its developers used and accepted by the members of a given community, and has no intrinsic value outside of this community.

Therefore DSLA Tokens belong the category of utility tokens, as it only grants to its purchasers the right to use it on the Platform or to get reparation in case of default in application of a Decentralized Service Level Agreement.

Prior to any contribution, all DSLA Tokens purchaser acknowledge and accept that DSLA Tokens do not, under any circumstance, represent any form of investment or financial investment and agree not to attempt to divert the tokens function for speculative purposes. DSLA Tokens purchasers shall not obtain or use DSLA Tokens for any illegal purposes wherever in the world, in particular for money laundering and/or terrorism.

Archived copy · cryp2nova.com

ARTICLE 4 – REFUND POLICY

Unless otherwise stated in these T&C, contributions made by DSLA Tokens purchasers are irrevocable and not refundable under any circumstances.

By purchasing DSLA Tokens, DSLA Tokens purchasers acknowledge that neither Stacktical nor any member of Stacktical team or advisors are, or will be required to provide any refund for any reason, and that DSLA Tokens purchaser will not be entitled to receive money or any other compensation for any DSLA Token they hold that could not be used onto the Stacktical Platform.

Besides, as the DSLA Tokens offered for sale are deemed intangible property, having no value or functionality other than the Stacktical Platform service, no guarantee is attached to them following issuance. No final contribution confirmed on the Website may be subsequently cancelled or refunded.

DSLA Tokens purchasers acknowledge that they are fully aware that they will not be entitled to claim any full or partial reimbursement under any circumstances whatsoever.

ARTICLE 5 – RISKS INHERENT TO STACKTICAL TOKENS SALE

1. Security and loss of private key

a. DSLA Tokens purchasers security

Any DSLA Tokens purchaser shall implement reasonable and appropriate measures designed to secure access to (i) any device associated with his Stacktical account, (ii) private keys required to access any relevant Blockchain address, and (iii) DSLA Tokens purchaser username, password and any other login or identifying credentials, used to login onto the Website.

The loss or destruction of a private key will permanently and irreversibly deny the holder access to their DSLA Tokens. DSLA Tokens are controlled only by the validation of both the relevant unique public and private keys through the local or online wallet. While all DSLA Tokens holders are recommended to protect and securely store their private keys, each holder is responsible for safeguarding the private keys applicable to their own wallets.

Stacktical team has noted that several Tokens Sales have been victims from hackers and phishing attempt for potential purchasers. Please note that the Tokens Sale will only take place on Website. Stacktical team will not solicit any subscription by email or phone from its potential DSLA Tokens purchasers. In case of doubt, please contact us at contact@stacktical.com . Please be informed that Stacktical team will never ask DSLA Tokens holders to provide by phone, email or through social media, their DSLA Tokens wallet private key.

DSLA Tokens purchasers will assume full responsibility for the consequences of any theft, malfunction or misuse of the Platform or DSLA Tokens acquired, as a result of a lack of security or any use by any person to whom DSLA Tokens purchaser has provided his credentials, intentionally or not.

b. Platform and blockchain security

Hackers, criminal groups or organizations may attempt to interfere with Stacktical Platform or the availability of DSLA Tokens in several ways including, but not limited to, denial of service attacks, Sybil attacks, malware attacks or consensus-based attacks.

Besides, Stacktical Platform is based on open source software. There is therefore a risk that third parties, may intentionally or unintentionally introduce weaknesses or bugs into the Platform code, by interfering with the use of it or causing loss of some or all DSLA Tokens.

Moreover, advancement in cryptography technologies and techniques, including but not limited to code cracking, developments of artificial intelligence and/or quantum computers, could be identified as risks to all cryptography-based systems. When such technologies and/or techniques are applied to Stacktical blockchain, adverse outcomes such as theft, loss, disappearance, destruction, devaluation or other compromises of the DSLA Tokens held by any person may result.

The absolute security of the Platform and Stacktical blockchain cannot be guaranteed as the future of cryptography or security innovations is unpredictable at the date of the T&C.

DSLA Tokens purchasers accept and acknowledge the risk to see the Stacktical blockchain compromised, causing a loss of value of DSLA Tokens or the loss of part or all DSLA Tokens issued during Stacktical Tokens Sale.

c. Stacktical Tokens Sale proceeds security

Archived copy · cryp2nova.com

There may be attempts to steal the Stacktical Tokens Sale proceeds collected from DSLA Tokens purchasers. While Stacktical will endeavor to adopt industry best practices to keep the proceeds safe (including but not limited to the use of cold storage), successful cyber thefts may still occur. Any loss of Stacktical Tokens Sale proceeds arising from such theft(s) may impact the ability of Stacktical to fund the development or maintenance of Stacktical Platform and Stacktical Project.

d. Stacktical Tokens Sale proceeds conversion plan

In order to develop the Stacktical Project and to pay the costs linked to the Token Sale, the Stacktical team will need to convert the proceeds of the Tokens Sale received in ETH in fiat money, and notably, in Euros. In consideration of the calendar of the contemplated expenditures pursuant to the roadmap, and to limit the exposition to currency risks in a context of high volatility, please note that the proceeds of the Tokens Sale are intended to be converted by tranches, as follows:

- Private Sale proceeds: immediate conversion in fiat currencies;
- Pre Sale and Public Sale: subject to the reaching of the soft cap threshold, the proceeds will be kept in custody in a smart contract. These proceeds will be released from custody by tranches of EUR 1M (equivalent in ETH based on CoinMarketCap exchange rate), and converted immediately into euros, in order to continue the development provided by the roadmap.

While Stacktical will by this mean try to reduce its exposure to currency risks while keeping the proceeds as they are into custody, the participants shall acknowledge that a loss of some or all of the value of the Tokens Sale proceeds may result to the interruption of the Stacktical Project due to a lack of financial means.

2. Legal and regulatory risks

a. Stacktical Tokens Sale legal and regulatory risks

Blockchain technologies, cryptocurrencies and projects financing through cryptocurrencies have been the subject of close scrutiny by various regulatory bodies around the world. Given the lack of crypto-currency qualifications in most countries, each DSLA Tokens purchaser is strongly advised to carry out a legal and tax analysis concerning the purchase and ownership of DSLA Tokens according to their own nationality and place of residence.

Stacktical Project has not been registered under any jurisdiction to date. The regulatory authorities of a number of jurisdictions may oversee crypto-assets globally which may cause Stacktical Platform to be subject to scrutiny, which may conduct to injunctions or sanctions over Stacktical Project.

Stacktical may receive notices, queries, warnings, requests or rulings from one or more regulatory authorities upon short notices, or may even be ordered to suspend or terminate any action in connection with the Stacktical Tokens Sale or the Stacktical Blockchain as a whole without prior notices.

The planning, development, marketing, promotion, execution of Stacktical Project or the Stacktical Tokens Sale may be seriously affected, hindered, postponed or terminated as a result of regulators actions.

DSLA Tokens could be deemed from time to time as a virtual commodity, digital asset or even securities or currency in various jurisdictions and therefore could be prohibited from being traded or held in certain jurisdictions pursuant to local regulations.

There is no guarantee that Stacktical will be able to maintain a legal status in all jurisdictions addressed today by Stacktical Tokens Sale at all times, Stacktical Project may even never come to fruition or may have to be abandoned, leaving the issued DSLA Tokens issued without any use.

3. Technological risks

Due to the technically complex nature of Stacktical Project, Stacktical could face difficulties that may be unforeseeable and/or unsolvable. Accordingly, the development of Stacktical Platform could fail, terminate or be delayed at any time for any reason (including but not limited to lack of funds or legal constraints). Development failure or termination may render DSLA Tokens worthless and/or obsolete.

In addition, some of the Stacktical Platform features are currently under development. Consequently, DSLA Tokens purchasers accept that the development may not fully succeed, that the Stacktical Platform may never be released and operational, even though Stacktical makes reasonable efforts to deliver Stacktical Platform in time. The Platform may be subject to software and/or technical risks, or some of the features presented herein may never be implemented onto the Platform.

Stacktical team has chosen to develop its Platform on the Ethereum protocol but reserves itself the right to switch, in the future, to its own proprietary protocol, after Stacktical Tokens Sale, for its technical support, after having audited its performances in terms of exchange protocol and scalability technologies.

Archived copy · cryp2nova.com

DSLA Tokens purchasers shall note that any malfunction, unplanned function, or unexpected operation on the Ethereum protocol (and then Stacktical protocol) may cause the Platform or DSLA Tokens to malfunction or to operate in a way that is not expected. ETH, Ethereum protocol account unit, may itself lose value in a similar way to DSLA Tokens, or in any other way. In such a case, or if the Ethereum protocol development does not exceeds Stacktical expectations, leading to a bottleneck for Stacktical's development, Stacktical will consider switching its underlying Platform from Ethereum Blockchain to another Blockchain services supplier, in order to ensure the quality of service Stacktical intend to grant its clients, in terms of performance, capacity, scalability, reliability and data security.

4. Violation of Privacy or Data Protection Laws

Stacktical is subject to applicable privacy and data protection laws and regulations. Any violations of laws and regulations relating to the safeguarding of private information could subject Stacktical to injunctions and/or sanctions. Any such violations could adversely affect the ability of Stacktical to operate the Stacktical Blockchain, which could have a material adverse effect on the Stacktical Blockchain's operations as well as the utility of DSLA Tokens.

5. Amendment or termination of the Stacktical Project

a. Amendment of the Stacktical Project

At the date of these T&C, Stacktical is still seeking legal confirmation regarding the regulatory environment in France for initial coin offerings, as the PACTE law project, which may enact a legal framework for this type of operations, by notably offering to issuers an optional visa, is still under review by the French Parliament. Stacktical will seek to comply with all regulatory constraints set by French regulator.

To achieve this goal, Stacktical team has met with the AMF Fintech team to present this White Paper and detail the main characteristics of the Token Sale, within the framework of the UNICORN program.

Pending the enaction of such regulations, some or all aspects of these T&C, the White Paper and other related marketing materials may need to be amended accordingly. While Stacktical will aim to minimize the impact of such changes on the Stacktical Project, DSLA Tokens purchaser should be aware of the risks associated with possible changes, which may have adverse effects on the benefits and legitimacy of Stacktical Project. Also, Stacktical Tokens Sale may be terminated pursuant to the conditions mentioned in the T&C herein.

b. Termination of the Stacktical Project

Without being contrary to anything contained herein, Stacktical shall be entitled to terminate Stacktical Tokens Sale if any of the following events occurs:

- With or without reasons, Stacktical elects to cease the development of the Stacktical blockchain prior, during or after any step of the Stacktical Tokens Sale by making an announcement;
- The development of Stacktical blockchain is required by any applicable law or regulations to terminate before, during or after any step of the Stacktical Tokens Sale;
- Stacktical being notified by any government in any jurisdiction that Stacktical Tokens Sale is under investigation, prohibited, banned or forced to cease; and
- The development of Stacktical blockchain is discontinued prior to the DSLA Tokens issue due to any force majeure event and Stacktical cannot reasonably expect resumption will take place within six (6) months.

Stacktical shall retain its full discretion to declare termination of Stacktical Tokens Sale upon the occurrence of any of the above events while DSLA Tokens purchasers shall not be entitled to object to or deny the decision made by Stacktical.

Notwithstanding the termination of Stacktical Tokens Sale:

- the representations and warranties made by each DSLA Tokens purchaser shall remain true, complete, accurate and non-misleading; and
- the risk factors as set forth in the present Article 5 of the T&C shall survive.

6. Loss or inexistence of DSLA Tokens utility functions

Resulting of the elements mentioned above, and although we anticipate that DSLA Tokens holders will benefit in the future from certain utility functions on the Platform, DSLA Tokens will have no such utility at issuance. Although Stacktical will endeavor to

Archived copy · cryp2nova.com

develop the Stacktical blockchain and apply utility functions for the benefit of DSLA Tokens holders with its current and future partners, there can be no assurance that the DSLA Tokens will ever provide any functional utility.

7. Risk of capital loss

The value of DSLA Tokens is not guaranteed. Purchasing DSLA Tokens entails a significant capital risk, which DSLA Tokens purchasers acknowledge and accept. These DSLA Tokens do not belong to regulated financial institutions and the loss of some or all of their value is not insured.

8. Stacktical governance and resources

Stacktical team will have broad discretion in the use of Stacktical Tokens Sale proceeds and purchasers of DSLA Tokens will have to rely upon their judgment. At present, the Stacktical Tokens Sale proceeds are expected to be used to fund the technical development, promotion, legal structuring, marketing, ecosystem building and ongoing maintenance of the Platform. While Stacktical's directors endeavor to spend these funds as effectively as possible, any failure to effectively deploy the sale proceeds could have a material adverse effect on the development of Stacktical Blockchain and the utility of the DSLA Tokens.

Stacktical company does not have substantial resources by itself. Stacktical does not have any legally binding commitment from any person to contribute additional capital or to make any loan to it. If Stacktical was to be unable to fund its operations in the future, or if Stacktical was to become the subject of a bankruptcy or other insolvency proceeding, Stacktical might be unable to continue to operate the Stacktical blockchain, the Stacktical Project and the utility of DSLA Tokens could be materially adversely affected.

9. Stacktical Project attractiveness and effect on decentralized blockchain technologies

The utility and benefits of Stacktical Project depends on the popularity of the Stacktical blockchain. DSLA Tokens may not be popular, prevalent or widely transacted soon after the Stacktical Tokens Sale. DSLA Tokens may remain marginalized in the long run, appealing to only a minimal fraction of the general public.

The absence of active users and low level of commercial utilization may negatively affect the long-term development and future of Stacktical Project.

After the Stacktical Tokens Sale, Stacktical will not be responsible for the subsequent circulation of DSLA Tokens. There will be no obligation for Stacktical to redeem, repurchase or acquire any DSLA Tokens from any DSLA Tokens holder.

There can be no guarantee or assurance that there will be a market or marketplace where holders may readily buy or sell DSLA Tokens. Due to regulation issues, some jurisdiction may forbid the trading of DSLA Tokens on exchanges on their territory or for their nationals. Stacktical does not control public access to DSLA Tokens on exchanges where DSLA Tokens are or will be listed. However, all potential DSLA Tokens purchasers on these exchanges shall be subject to the same prerequisites than those imposed to DSLA Tokens purchasers during the Stacktical Tokens Sale as detailed under Article 2 of the present T&C.

These elements may conduct to large fluctuations in price over short timeframes for DSLA Tokens. DSLA Tokens purchasers agree not to attempt to divert the DSLA Tokens function for speculative purposes. Stacktical will not be responsible for any secondary market trading of DSLA Tokens, regardless whether such markets exist or not for DSLA Tokens.

10. Other material risks

Stacktical and its advisors may not be held liable for any of the following:

- use of Stacktical services that are not considered as compliant with the present T&C;
- non-performance, failure, malfunction or unavailability of the Stacktical Platform for any reason;
- mismatch between the services developed and the DSLA Tokens purchaser's needs;
- suspension of access or suspension of services (in particular arising from a request issued by an appropriate administrative or judicial authority, or notification received from a third party);
- security incidents relating to use of the Internet, concerning in particular, the loss, alteration, destruction, disclosure or unauthorized access to the investor's data or details on or via the internet; and
- loss, alteration or destruction of all or part of the content (information, personal or financial data, files or other items) hosted on Stacktical Platform;
- damages to systems, application and other items installed by the purchaser or by any third party on the infrastructure.

CRYP2NOVA

Archived copy · cryp2nova.com

11. Unforeseen risks

Crypto-currencies and cryptographic tokens are a new, untested technology. In addition to the risks stipulated above, there are other risks that Stacktical cannot predict. Risks may also occur as unanticipated combinations or as changes in the risks stipulated herein.

ARTICLE 6 – REPRESENTATIONS AND WARRANTIES

Except as expressly stated in these T&C, Platform DSLA Tokens and all Stacktical services are provided on an "as is" and/or "under development" basis, without representations or warranties of any kind whatsoever, express or implied to the extent permitted by law, including, but not limited to, accuracy and completeness of any information provided in the White Paper and/or in these terms, merchantability or fitness for a particular purpose, that DSLA Tokens are used and hold at the sole risk of the DSLA Tokens purchaser, that Platform, DSLA Tokens and/or the underlying Stacktical blockchain protocol will be available uninterrupted and timely, will be free from defects, errors and bugs, and/or will be entirely secure.

By participating in the Stacktical Tokens Sale, the DSLA Tokens purchaser represents and warrants that:

- all information submitted by such DSLA Tokens purchaser to Stacktical is true, complete, valid and non-misleading;
- he is authorized and has full power to purchase, receive and hold cryptographic tokens, such as DSLA Tokens, according to the laws applicable in his jurisdiction;
- he is a Whitelisted Purchaser as defined in the T&C herein;
- he is not a Bahamas, Botswana, Canada, China, Cuba, Democratic People's Republic of Korea (DPRK), Ethiopia, Ghana, Iran, Iraq, Pakistan, Serbia, Sri Lanka, Sudan, Syria, Trinidad and Tobago, Tunisia, Yemen citizen nor a "U.S. Person";
- he only uses ETH lawfully created or acquired through, inter alios, mining and/or trading to make contribution in the Stacktical Tokens Sale and does not participate for any money-laundering, terrorism financing or other illegal purposes;
- his participation in the Stacktical Tokens Sale is entirely voluntary and the decision to participate is based wholly on such DSLA Tokens purchaser own independent judgment without being coerced, solicited, or misled by anyone else. He does not require any consent, approval, order or authorization of, or qualification, registration, declaration, designation or filing with, governmental authority or agent of any kind in relation to such DSLA Tokens purchaser's participation in the Stacktical Tokens Sale;
- he is of sufficient age to participate in the Stacktical Tokens Sale and is a person with full civil capacity of conduct under the laws of the jurisdiction where he is domiciled or maintains citizenship;
- he is acquiring DSLA Tokens for a future use of Platform and will not use the DSLA Tokens for the purpose of speculative investments;
- he is a sophisticated and experienced professional trader, expert, or technician in the fields of distributed ledger technology and cryptographic tokens and such DSLA Tokens purchaser is fully aware of the risks associated with the development and use of DSLA Tokens, experienced enough to be fully capable of operating, maintaining and safekeeping his DSLA Tokens wallet private key out of which such DSLA Tokens purchaser makes any contribution for purchasing the DSLA Tokens and that he is the beneficial owner of such cryptographic token wallet and attached DSLA Tokens;
- he has thoroughly reviewed and comprehended these T&C and the White Paper in full;
- all the above representations and warranties made by a DSLA Tokens purchaser are true, accurate, complete and non-misleading on and from the date of such DSLA Tokens purchaser making a contribution during Stacktical Tokens Sale and thereafter.

Stacktical reserves the rights to deny and invalidate the contribution by, and withhold the distribution of relevant DSLA Tokens from, any DSLA Tokens purchaser who has made a false, incomplete or misleading representation, based on the sole judgment of Stacktical.

ARTICLE 7 – PROTECTION OF PERSONAL DATA

Pursuant to the General Data Protection Regulation (EU) 2016/679 that applies since May 25th 2018 to some of the DSLA Tokens purchasers depending on their nationality or residence (EU residents), Stacktical shall implement appropriate measures to prevent

Archived copy · cryp2nova.com

any unauthorised use or disclosure of any personal data made available to and processed by Stacktical in connection with the Platform and the Stacktical Tokens Sale.

To this end, Stacktical and its partners will implement and maintain physical and technical measures that reasonably and appropriately protect the confidentiality, integrity, security and availability of the DSLA Tokens purchaser data.

Stacktical will not process any of the personal data collected during KYC/AML process as provided by article 2 (d) of the present T&C, realized during the Tokens Sale. If this situation was about to change, the processing of personal data that could be performed on the Platform would be declared in France to the National Commission for Data Protection and Liberties if needed. Stacktical, which is responsible for processing the said data, will immediately inform the DSLA Tokens purchasers by email that it is processing their personal data, leaving them the possibility to oppose to such processing if it is allowed by law.

For the sake of KYC/AML and Stacktical activities, Stacktical will limit the personal data processing regarding DSLA Tokens purchasers to the minimum necessary to propose its services with respect to KYC/AML best practices and Tokens Sale valuation requirements. Access to this information will be limited to Stacktical personnel and/or to any trusted third party for the sole purpose of the provision of the Stacktical services or KYC/AML process.

Besides, all DSLA Tokens purchasers acknowledge that Stacktical may be required to provide the Covered Data to any regulatory bodies or administrative authorities if required by law.

Stacktical will keep DSLA Tokens purchaser's data only for as long as is it is necessary, or as required by law.

Any DSLA Tokens purchaser is entitled to object to the processing of his personal data for legitimate reasons, as well as to object to the use of such data for the purposes of prospecting activities.

Pursuant to the General Data Protection Regulation, DSLA Tokens purchaser shall be entitled to request access to, rectification, erasure of his own personal data, or restriction of processing concerning DSLA Tokens purchaser or to object to processing as well as the right to data portability. However, given the immutable nature of the blockchain technology used, DSLA Tokens purchaser may not be able to exercise all of these rights.

However, as far as technically possible, Stacktical will will make its best efforts to enable DSLA Tokens purchaser to exercise his rights. To do so, the DSLA Tokens purchaser shall notify in writing his request to Stacktical, with a copy of its signed ID document to the following address: support@stacktical.com

ARTICLE 8 – LEGISLATIVE AND/OR REGULATORY DEVELOPMENTS

Stacktical Tokens Sale is drafted and circulated worldwide via the Website and has not been registered under any law of any jurisdiction so far. DSLA Tokens purchasers may be from any jurisdiction in the world except for countries where the Stacktical Tokens Sale, the distribution or use of the information set out in this White Paper or the acquisition or ownership of crypto-tokens would be contrary to law or regulation of such jurisdiction.

ARTICLE 9 – FORCE MAJEURE

Force majeure is deemed any event beyond the parties' control, which they cannot reasonably foresee or reasonably avoid or overcome, provided that its occurrence makes it impossible for the parties to fulfill their obligations, and adversely affects purchase execution (e.g. earthquake, storm or other element of nature, embargoes, substantial change in the price of resources, electrical telecommunications, hardware, software or other utility failures, armed conflicts, labor disputes or other industrial disturbances, changes in laws or regulations, changes in blockchain technologies, etc.). The most diligent Party shall promptly notify the other Party by any means, and the Parties will then agree to negotiate in good faith any changes required to ensure the continuity of contract obligations. If, however, such impossibility exceeds three (3) months, the most diligent Party may terminate the contract in writing without incurring its liability and without entitling the other party to claim any right of compensation, with Stacktical retaining previously collected amounts, which are irrevocably acquired.

ARTICLE 10 – MISCELLANEOUS

1. No representation or warranty

Stacktical disclaims and makes no representation or warranty with respect to Stacktical Tokens Sale, Stacktical Blockchain or DSLA Tokens (including but not limited to its merchantability or fitness for any particular purpose), except those expressly specified herein. Each DSLA Tokens purchaser's decision to participate in Stacktical Tokens Sale and purchase any DSLA token shall be made based on such DSLA Tokens purchaser's own knowledge of Stacktical, Stacktical Project, DSLA Tokens and the information disclosed herein or in the White Paper. Notwithstanding the generality of the foregoing, each DSLA Tokens purchaser will, upon Stacktical Tokens Sale, accept DSLA Tokens and the purchased DSLA Tokens on an "as is" basis, irrespective of its technical specifications, parameters, performance or function.

Archived copy · cryp2nova.com

2. No liability

Stacktical expressly disclaims any liability, and shall under no circumstances be liable to any person, in connection with or arising out of:

- Any person's participation in Stacktical Tokens Sale in violation of any regulatory requirements imposed by any jurisdictions that may be applicable to them. Such regulatory requirements include but not limited to those relating to anti-money laundering and counter-terrorism financing initiatives;
- Any person's participation in Stacktical Tokens Sale that may violate any warranty, representation, covenant, obligation or other provision under this White Paper, and the failure or inability to retrieve their contribution or to claim relevant purchased DSLA Tokens that may result;
- Termination of Stacktical Tokens Sale for whatever cause;
- Failure, termination or abandonment of Stacktical Project development and any failure to deliver the purchased DSLA Tokens to DSLA Tokens purchasers that may result;
- Postponement or rescheduling of DSLA Tokens issuance and/or Stacktical development and any failure to meet any anticipated milestone that may result;
- Any flaw, error, bug, weakness or defect or otherwise of the source code of Stacktical Blockchain or Stacktical Platform;
- Any malfunction, instability, breakdown, paralysis, rollback or hardforking of the blockchain and other decentralized ledger technologies on which Stacktical Blockchain is based upon;
- Failure of Stacktical Platform to be used in any specific way or meet any specific purpose;
- The utilization of any or all of the proceeds raised through Stacktical Tokens Sale;
- Failure to timely and wholly disclose any information with regards to developments of Stacktical Project;
- Any DSLA Tokens purchaser's divulgence, destruction or loss of the private key relating to such DSLA Tokens purchaser's cryptographic tokens or cryptographic token wallet;
- Trading of DSLA Tokens by any person or entity, regardless whether it may be speculative in nature;
- Listing or delisting of DSLA Tokens on or from any exchange, including but not limited to cryptographic token exchanges;
- DSLA Tokens being treated or classified by any government, quasi-government, authority or public body (including but not limited to regulatory body of any jurisdiction) as a type of security, currency, commodity, commercial paper, negotiable instrument, investment or otherwise that may be banned, regulated or subject to certain legal restrictions and/or approval processes; or
- Any direct and indirect outcome resulted from the risk factors disclosed in article 5 of these T&C. This also includes any subsequent claim, damage, liability, loss, punishment, cost or other adverse impact that is associated with, caused by, in connection with, consequential to or incidental to that particular risk factor.

3. Tax

Each DSLA Tokens purchaser shall take full responsibilities to declare, bear and pay all taxes, duties, imposts, levies, tariffs and surcharges that might be imposed by the laws and regulations of any jurisdiction as a result of or in connection with the receipt, holding, use, purchase, appreciation, trading, remittance or disposal of DSLA Tokens (no matter whether purchased during Stacktical Tokens Sale or otherwise acquired). And each DSLA Tokens purchaser shall be solely liable for all such penal consequences, claims, fines, penalties, liabilities or otherwise arising from his underpayment, undue payment, belated payment or non-payment of any relevant tax. Stacktical does not give any advice on tax related matters and makes no representation as to the tax implication, if any, of any DSLA Tokens purchaser's participation in Stacktical Tokens Sale. It is the responsibility of each DSLA Tokens purchaser to consult his tax advisors before purchasing DSLA Tokens during and after Stacktical Tokens Sale.

4. No Waiver

From time to time, Stacktical may fail to require, or strictly enforce a DSLA Tokens purchaser's compliance in relation to any provision in these T&C. Stacktical may also fail to exercise any or all of its rights empowered herein. Such failure shall not be construed as a waiver or relinquishment of Stacktical's right to assert or rely upon any such provision or right in that or any other

CRYP2NOVA

Archived copy · cryp2nova.com

instance. If applicable, an express waiver given by Stacktical of any condition, provision, or requirement of the White Paper shall not constitute a waiver of any future obligation to comply with such condition, provision or requirement.

5. Severability

If any portion of this White Paper (including these T&C) is held to be illegal, unenforceable or invalid, whether in whole or part, under the laws of any jurisdiction, such illegality, unenforceability or invalidity shall not affect the legality, enforceability or validity of the rest of the White Paper in that jurisdiction, nor the legality, enforceability or validity of the White Paper in any other jurisdiction.

6. Titles and Subtitles

The titles and subtitles used in this White Paper are provided for convenience only and should not be considered in construing or interpreting this White Paper.

7. Jurisdiction

Stacktical Tokens Sale is drafted and circulated worldwide via the Website and has not been registered yet under any law of any jurisdiction. DSLA Tokens purchasers may be from any jurisdiction in the world except for countries where the Stacktical Tokens Sale, the distribution or use of the information set out in this White Paper or the acquisition or ownership of crypto-tokens would be contrary to law or regulation of such jurisdiction.

8. Dispute Resolution

DSLA Tokens purchaser shall irrevocably submit to the jurisdiction of the courts of France in respect of any dispute arising out of or in connection with the Stacktical Tokens Sale.

This White Paper and the Stacktical Token Sale and the purchase of the DSLA shall be governed by and construed in accordance with the substantive laws of France without regard to the conflicts of law rules and without regard to the rules of the Vienna Convention on the International Sale of Goods dated 11 April 1980.

Any dispute, controversy or claim arising out of or in connection with the present White Paper, the Token Sale and/or the purchase of the DSLA Tokens shall be subject to the exclusive jurisdiction of the court of appeal of Paris district, despite multiple defendants or the introduction of third parties.

CRYP2NOVA

Archived copy · cryp2nova.com