

White Paper

PortService Token (PST) Utility token for a universal transshipment complex in the port of Chornomorsk LLC "PORT-SERVICE" (PORT - SERVICE LLC) Date: May 2025

2. Executive Summary

LLC "PORT-SERVICE" launches **PortService Token (PST)** – ERC -20 utility token on the blockchain Ethereum , created for finance and governance construction **universal transshipment complex (UPK)** seaport of Chornomorsk . PST combines :

- **Investment ICO model** from gradual selling in 8 phases (from Foundation Phase to Expansion Phase) with prices from 0.03 to 0.10 USDT.
- **Utility- functionality** discounts up to 20% on port services , priority booking of processing " windows ", payment warehousing , container transshipment , SCADA and others services .

Key indicators

- **General emission** : 2,200,000,000 PST
- Tokens for sale (8 phases): 1,980,000,000 PST (90%)
- Ecosystem & Development: 220,000,000 PST (10%)
- Soft/Hard Cap: 110,440,000 USDT (total collection)
- Target PST cost : from 0.03 USDT (Foundation) to 0.10 USDT (Expansion)

Problem

- Ukrainian ports are overloaded outdated capacities .
- Delays in processing ships and wagons increase logistical costs exporters .
- Traditional sources financing slow and opaque .

Decision

- **Construction of a PCC** with depth berths up to 14.5 m, 3 km of railway tracks and multimodal logistics .
- **Digitalization processes** through SCADA, API integration and a single management platform.
- **Funding through ICO PST** is a transparent, step-by-step model with clear binding stages of sale to construction progress .

Utilitarian PST benefits

- 1. **Discounts up to 20%** at the port services (container transshipment, warehousing, logistics).
- 2. Priority booking processing time " windows " cargo .
- 3. Payment options port services in PST.

4. Development services.

Tokenomics (review)

Indicator	Value
General emission	2,200,000,000 PST
Sale (8 phases)	1,980,000,000 PST (90%)
Ecosystem & Development	220,000,000 PST (10%)
General gathering	110,440,000 USDT
Chain	Ethereum (ERC-20)

Roadmap (key phases)

- 1. Foundation Phase (2025 Q3-Q4) start of ICO, foundation works
- 2. Consolidation Phase (2026 Q1-Q4) reinforcement foundations, infrastructure
- 3. Structural Phase (2027 Q1-Q4) installation metal structures
- 4. Commissioning Phase (2028 Q1-Q4) testing and certification
- 5. Infrastructure Phase (2029 Q1-Q4) railway connection, customs
- 6. Integration Phase (2030 Q1-Q4) SCADA, automation, applications
- 7. Launch & Operation (2031 Q1-Q4) Grand Opening, marketing, listing
- 8. Expansion Phase (2032 Q1-Q4) new services , global partners

Team

- 1. Olesya Voytovych , CEO
- 2. Alexey Lan, CTO
- 3. Alexandra Movsesyan, Marketing & Community Manager
- 4. Norayr Sargsyan, CFO
- 5. Vadym Tugay , Smart Contract
- 6. Yuriy Nlotov, Frontend/Web3
- 7. Iryna Gushel, Legal
- 8. Arthur Kozuniti, Construction

- 9. Artem Prepiyalo, Civil Engineer
- 10. Svitlana Sorochynska , QA/EHS
- 11. **Dmytro Lukashyk** , Logistics

3. Problem Statement

Modern global trade increasingly more relies on efficiency port infrastructure . However, a number of key issues are holding back development Ukrainian export and import through Chornomorsk :

3.1 Limited pass ability

- 1. **Obsolete power** state terminals are not allowed process large-tonnage vessels more than 360 m in length and with a deadweight of over 50,000 DWT .
- 2. The average ship idle time in port exceeds **48–72 hours**, which causes magnification freight costs and reduction competitiveness Ukrainian exporters.

3.2 Logistics delays and complexity multimodal transportation

- 1. Absence integration between sea , rail and road chains leads to **blurred cargo control** and duplication operations .
- 2. Driveways railway tracks 2.8 km long (1st phase) and 0.2 km (2nd phase) already working on the edge throughput capabilities , creating queues wagons .

3.3 Absence transparency and digitalization

- 1. Majority processes is underway manually or in isolated IT systems that complicates Real- time monitoring and forecasting .
- 2. Claims of delays at customs are punishable registration through paper documents and insufficient integration with the United window

3.4 High operational costs

- 1. Ineffective energy and water supply , outdated cranes and equipment lead to growth OPEX (up to 40% of the cost) processing cargo).
- Cost electricity at the tariffs of "Odesaoblenergo " is up to 6750 MWh / year (export) and 4300 MWh / year (import) for existing objects .

3.5 Limited financial mechanisms

- 1. Traditional banking Lending is long and opaque process with high in percentages .
- 2. State grants and programs investments are not taken into account fast deployment infrastructure and international needs traders .

Consequences rejection solutions :

1. Decrease transshipment volumes (current indicator - approximately **2.2 million tons/ year** in the first in turn).

- 2. Loss income exporters through additional freight and downtime costs .
- 3. Limitation growth Ukrainian agricultural and industrial sectors .

Necessity innovative approach :

To overcome these calls , needed **phased private investment** a **model** that :

- 1. Will provide **fast construction** new terminals and tracks.
- 2. Will implement **through digitalization** processes (SCADA, API).
- 3. Create a **transparent ecosystem funding** via the PST utility token .

4. Our solution

PortService combines **three key components** — advanced the infrastructure of the criminal procedure code, solid digital platform and transparent financial model based on utility token PST to fully solve discovered problems .

4.1 Physical infrastructure of the criminal procedure code

1. **Deep-sea berths**

- 1. Length two moorings 750 m, navigation depth up to 14.5 m.
- 2. Acceptance of vessels with a deadweight of up to 80,000 DWT without additional restrictions .

2. **Elevator complex**

- 1. Power disposable storage 60,000 tons.
- 2. Modular silos with automated loading / unloading system .

3. **Railway logistics**

- 1. Laid out over 3 km of new driveways tracks with a throughput capacity of up to 2,200 thousand tons/ year of grain and 250 thousand tons of general cargo.
- 2. Integration with the state railway through special solutions and scales for automatic weighing .

4. **Automobile front and customs zones**

- 1. Four stripes reception cargo from ramps and weight.
- 2. Individual control points for quick customs design .

5. Result

1. Cumulative pass the capacity of the complex after commissioning — more than **3** million tons/ year.

2. Noticeable decrease downtime of ships and wagons up to **12–24 hours**.

4.2 Solid digital platform

1. **SCADA**

- 1. Central control panel to everyone equipment of the PCC.
- 2. Monitoring equal silos , loading cranes , energy consumption in real time .

2. **Digital Digital Twin**

1. Virtual model of cranes , tracks and warehouse areas for analysis productivity and optimization routes .

3. **Transparency data**

- 1. Access to reports 24/7 via the investor portal .
- 2. Charts loading , average processing time , emissions CO_2 .

4.3 Financing through PortService Token (PST)

1. **Phased ICO model**

- 1. 8 sales phases with clear linked to infrastructure milestone .
- 2. Capital arrives pro rata execution stages , minimizing risk underfunding .

2. **Transparent emission**

- 1. General emission 2,200,000,000 PST , of which 90% is sold within ICO , 10% for development ecosystems .
- 2. All transactions on the blockchain Ethereum , open smart contract .

4.4 PST Utility Cases

1. **Payment port services**

1. Warehousing , container transshipment, logistics — possible pay with PST tokens .

2. **System discounts**

1. Up to 20% discount on basic rates subject to a balance of 500,000 PST .

3. **Priority booking**

1. Holders PST have priority in windows processing cargo .

4.5 Economic efficiency

- 1. **Decrease OPEX** by 15–25% thanks to automation and digitalization .
- 2. **Abbreviation** vessel **downtime** from 48–72 hours to 12–24 hours.
- 3. ROI investors guaranteed by the phase structure (up to ×3.33 in Foundation Phase).

5. Market & Competitive Analysis

5.1 Market Ukrainian Black Sea ports

In 2024 Ukrainian seaports processed **97.2 million tons** cargo , which is 57% more compared to 2023, demonstrating rapid restoration after logistic restrictions . Ports of the Great Odessa (Pivdennyi , Chornomorsk , Odesa) processed in the first quarter of 2025 **20.7 million tons** , of which **6.6 million tons** fell to the port of Chornomorsk .

5.2 Trends growth

- 1. In 2024, cargo transshipment in Chornomorsk increased by **77%** thanks to restoration marine routes and improvements security.
- The forecast for 2025–2026 predicts further growth cargo turnover within +15–20% annually thanks to the "Black Sea Corridor" and the growth of agricultural exports .

5.3 Competitive environment

Port	2024 (million tons)	n Q1 2025 (million tons)	Features
Pivdennyi (South)	75	10.6	Most deep-water port of the region ; container port terminal (760,000 TEU)
Chornomorsk	60.3	6.6	Depth up to 14.5 m; multi-format UPC with 60,000 t elevator
Odessa	18.5	3.5	Requires modernization ; focus on container and general cargo loads

Competitive Advantages advantages)

1. Deep-sea Berths (up to 14.5 m)

Acceptance of vessels with a deadweight of up to 80,000 DWT without restrictions .

2. Multi-format UPK

Continuous transshipment of grain , general and container cargo cargo elevator for 60,000 tons and 3 km of railway tracks .

3. Digital platform (SCADA + API)

 $24/7\ monitoring\ equipment$, booking " windows " processing and integration with ERP / CRM customers to reduce downtime .

4. **Phased ICO model**

Clear linking PST sales phases to construction phases milestone increases trust investors and minimizes financial risks .

5. **Transparent financial model**

All USDT fees on a multisig wallet with public access; open - source smart contract .

6. **Utilitarian value PST**

Discounts up to 20% at the port services , priority booking and payment for warehousing , transshipment and IT services .

7. **Optimal distribution** 90% of tokens **issued**

goes to development infrastructure , only 2.5% is allocated under the team's foundation — maximum focus on the project .

8. **High market** Black Sea ports demonstrate **potential**

growth cargo turnover more than 50%, which creates favorable conditions for implementation innovations .

6. Tokenomics

6.1 General parameters token

- 1. **Name :** PortService Token (PST)
- 2. **Standard :** ERC-20
- 3. **Network :** Ethereum
- 4. **Contract:** open , verified , security Hardhat / Foundry
- 5. **Symbol :** PST
- 6. **General emission : 2,200,000,000 PST**
- 7. Hard cap (general) collection): 110,440,000 USDT

6.2 Sale tokens in 8 phases

Phase	Price (USDT) Collection (USDT) Sold PST	% of emissions
1 – Foundation Phase	0.03	13,860,000	462,000,000	21%
2 – Consolidation Phase	0.04	14,080,000	352,000,000	16%
3 – Structural Phase	0.05	14,300,000	286,000,000	13%
4 – Commissioning Phase	0.06	13,200,000	220,000,000	10%

Phase	Price (USDT)	Collection (USDT)	Sold PST	% of emissions
5 – Infrastructure Phase	0.07	13,860,000	198,000,000	9%
6 – Integration Phase	0.08	14,080,000	176,000,000	8%
7 – Launch & Operation	0.09	13,860,000	154,000,000	7%
8 – Expansion Phase	0.10	13,200,000	132,000,000	6%
Total (sale)	_	110,440,000	1,980,000,000	90%
Ecosystem & Development	_	_	220,000,000	10%
Total emissions	_	_	2,200,000,000	100%

6.3 Distribution Ecosystem & Development Fund (10%)

Category	PST	% of emissions	Vesting / Unlocking
Marketing & Partners	110,000,000	5%	30% on TGE, the rest — 18 months .
Team	55,000,000	2.5%	6 months cliff + 24 months linear
Liquidity	55,000,000	2.5%	Fully on TGE (for LP)

6.4 Mechanism sales and CONTROL funds

1. Token payment : USDT (ERC -20) is sent to a special depositary purse project .

2. **CONTROL over by means of :**

.

- 1. Quarterly financial expense reports and audits published in the investor portal .
- 2. All significant costs (CAPEX / operational) are agreed upon Board of Directors project

6.5 Use collected funds

Category	% of collection Description application	
Foundation & Consolidation	37%	Fundamental works , laying basics
Structural & Commissioning	23%	Installation of metal structures , testing and certification

Category	% of collection Description application	
Infrastructure & Integration	17%	Track laying , customs zones , SCADA , automation
Launch & Operation	13%	Commissioning , marketing , operations launching
Ecosystem & Development	10%	Expansion services , partnerships, support ecosystems

7. Investment strategy PST

Strategy built around phased token sale in eight phases, which gives possibility :

- 1. to record profit according to multipliers ROI ;
- 2. get priority in use infrastructure of the port of Chornomorsk;
- 3. use flexible model utilitarian privileges , which is activated automatically depending on from your PST balance .

Phases PST sales

Phase	Price (USDT)	Discount on services	Theoretical ROI
🚦 Foundation Phase	0.03	70%	× 3.33
🛠 Consolidation Phase	0.04	60%	× 2.50
Structural Phase	0.05	50%	× 2.00
Commissioning Phase	0.06	40%	× 1.67
🚝 Infrastructure Phase	0.07	30%	× 1.43
🔗 Integration Phase	0.08	20%	× 1.25
🚀 Launch & Operation	0.09	10%	× 1.11
📈 Expansion Phase	0.10	0 %	× 1.00

Privileges on basis PST balance

PST balance	Discount on services	Priority booking
100,000,001+ PST	20%	
50,000,000 - 100,000,000 PST	15%	

PST balance	Discount on services	Priority booking
10,000,000 – 50,000,000 PST	10%	
500,000 – 9,999,999 PST	5%	
up to 499,999 PST	0 %	×

Others key moments

- 1. **Fixation profit :** By purchasing PST for reduced at a price in phases 1–7 (0.03–0.09 USDT), investor maybe sell its on secondary market (DEX/CEX) for 0.10 USDT in the Expansion phase , implementing your ROI.
- 2. **Priority access:** Holders PSTs are automatically received priority booking of " windows " of processing cargo at the port .
- 3. **Payment of port fees operations PST :** Container transshipment, warehousing storage , logistics and IT services (SCADA , API) can be paid for with PST tokens as one of the options calculation .

8. Roadmap

Below is a detailed a roadmap with the phases of the UPC construction , the corresponding ICO rounds , key actions and results.

Phase 1: Foundation Phase

Period : 2025 Q3–Q4 (0–12 months) ICO **Round :** First public sale (Foundation)

Key actions :

- 1. Geodetic and engineering research plots
- 2. Preparation design and estimate documentation
- 3. Receiving permissive documentation
- 4. Procurement techniques and materials for foundation works
- 5. Construction pile fields , fill concrete

Results :

- 1. Established basis terminal
- 2. Finished foundation for installation metal structures

% Phase 2: Consolidation Phase

Period : 2026 Q1–Q4 (13–24 months) ICO **Round :** Consolidation

Key actions :

- 1. Instrumental trial and monitoring foundation
- 2. Strengthening drainage systems
- 3. Arrangement temporary roads , warehouses platforms
- 4. Gasket energy and water supply

Results :

- 1. Reinforced foundation in accordance to standards
- 2. Prepared infrastructure for installation metal structures

E Phase 3: Structural Phase

Period : 2027 Q1–Q4 (25–36 months) ICO **Round :** Structural

Key actions :

- 1. Assembling metal structures berth
- 2. Construction warehouses , hangars , sheds
- 3. Installation cranes and mobile reloaders
- 4. Electrification and assembling supporting systems

Results :

- 1. Functional buildings and power overload
- 2. Readiness to installation auxiliary systems

Phase 4: Commissioning Phase

Period : 2028 Q1–Q4 (37–48 months) ICO **Round :** Commissioning

Key actions :

- 1. Completion construction auxiliary buildings
- 2. Testing and certification cranes and equipment
- 3. Setting up security and operational control systems

4. Commissioning electro - and network substations

Results :

- 1. Key constructions put into operation
- 2. Confirmed readiness for integration logistics systems

Phase 5: Infrastructure Phase

Period : 2029 Q1–Q4 (49–60 months) ICO **Round :** Infrastructure

Key actions :

- 1. Railway laying tracks and integration with the state network
- 2. Creation customs and control zones
- 3. Installation IT infrastructure (video surveillance, automation)
- 4. Arrangement roads , lighting , markings

Results :

- 1. Functional integration with the national logistics
- 2. Current management system cargo and security

Phase 6: Integration Phase

Period : 2030 Q1–Q4 (61–72 months) ICO **Round :** Integration

Key actions :

- 1. Connecting SCADA and ERP/CRM to the only one platforms
- 2. Automation customs and transport procedures
- 3. Optimization road and rail transport flows
- 4. Deployment mobile applications for customers

Results :

- 1. The only one digital platform management
- 2. Maximum transparency and speed operations

Period : 2031 Q1–Q4 (73–84 months) **ICO Round :** Launch & Operation

Key actions :

- 1. Certification and state inspections
- 2. Pilot freight flights
- 3. Implementation CRM / ERP and Customs processes
- 4. Grand Opening of the complex
- 5. Listing PST on DEX / CEX , marketing campaign

Results :

- 1. Beginning commercial operation
- 2. Owners PST receive utilitarian advantages and liquidity market

Phase 8: Expansion Phase

Period : 2032 Q1–Q4 (85–96 months) ICO **Round :** Expansion

Key actions :

- 1. Expansion of the range of services (express transshipment, new services)
- 2. Additional listings PST and programs liquidity
- 3. Stimulation market through market making
- 4. Engagement strategic partners and customers

Results :

- 1. Sustainable growth transshipment and trade volumes PST
- 2. Extended ecosystem users and partners

9. Team and expertise

Our multidisciplinary team combines experience in construction big infrastructure objects and deep knowledge of Web3 technologies.

Name	Position	Key expertise
Olesya Voytovych	CEO / Project Director	Strategy development , interaction with investors
Alexey Lan	CTO / Tech Lead	Web3 Architecture , DevOps, Infrastructure decision
Alexandra Movsesyan	Marketing & Community Manager	Moderation communities , support users , Telegram
Norayr Sargsyan	CFO / Finance Manager	Budgeting , financial control , reporting
Vadym Tugay	Smart Contract Developer	Solidity, audit smart contracts , testing
Yuriy Nlotov	Frontend / Web3 Developer	React, wagmi , Web3Modal, adaptive UI/UX solutions
Iryna Gushel	Legal & Compliance Manager	Legal contracts , licenses , compliance regulations
Arthur Kozuniti	Construction Project Manager	Planning and coordination construction
Artem Prepiyalo	Lead Civil Engineer	Designing reinforced concrete and metal structures
Svitlana Sorochynska	QA & EHS Engineer	Quality control , security labor , ecology
Dmytro Lukashyk	Logistics & Supply Coordinator	Logistics materials , management warehouse stocks

Each team member is responsible for his/her area - from financial planning to technical implementation and marketing promotion . Together we provide successful implementation all stages project PortService Token .

10. Legal aspects and regulations

This section details the legal basis of the project PortService Token (PST) and compliance Ukrainian and international legislation .

10.1 Issuer and corporate structure

- 1. **Name :** PORT-SERVICE LLC (PORT SERVICE LLC)
- 2. **Type:** Limited liability company legal responsibility Ukraine
- 3. **Registration :** EDRPOU 32334151, Chornomorsk , 3 , 1 Travnya St.
- 4. **Participants and charter capital :** composition of participants and amount of authorized capital defined by statute, available upon request

10.2 Status PST token

- 1. **Utility token**, intended exclusively for receiving discounts, priority rights and payment of port fees services.
- 2. **Not valuable paper** according to Ukrainian legislation ("On valuables papers and stock market ") and interpretation Securities Commissions US Securities and Exchange Commission (SEC).

10.3 Tax and financial conformity

- 1. **Income tax :** profit companies from ICO is taxed according to from Articles 136-138 of the Tax Code of Ukraine .
- 2. **VAT:** cargo handling operations and provision of port services are subject to VAT at a rate of 20% (Article 193 of the Tax Code of Ukraine).
- 3. **Operations with the PST token :** exchange PST for services within Ukraine under consideration as barter operation to provide services and is subject to reporting by by the rules of the PKU.

10.4 Permissions and licenses

- 1. **Construction infrastructure :** received all necessary construction permissions according to the Law of Ukraine " On regulation urban planning activities .
- 2. **Marine activity :** compliance with State Service standards sea and river transport , including maritime shipping and security moorings .
- 3. **Logistic operations :** transportation licenses dangerous freight and customs services according to the " Customs Code of Ukraine ".

10. Quality Assurance & Project Safeguards

That guarantee reliability and transparency project PortService Token (PST) and UPC in the port Chornomorsk, we implemented a series events control and qualities that work in tandem with a phased funding and powerful by team.

10.1 Phased Funding Model

- 1. **Binding payments to be made works .** Each phase of the ICO activated only after confirmation completion relevant construction milestone .
- 2. **Decrease risk underfunding .** Money are coming gradually , ensuring clear discipline expenses .

10.2 Multisig Governance

- 1. **Decision expenses by a quorum (3 out of 5 members board).** Every considerable payment needs approval minimum three directors .
- 2. **Quarterly reports and reviews**. Publication financial and technical reports in the investor portal after review Board of Directors .

10.3 Smart Contract Security

- 1. **Internal audit and testing .** Using Hardhat and Foundry for confirmation correctness logic smart contracts .
- 2. **Open source code.** Accessibility contracts in public repositories for independent review community .

10.4 Experienced Core Team

- 1. **Probative experience in construction and logistics**. Key engineers and managers successfully implemented infrastructure projects in Odessa region .
- 2. **Web 3 specialists.** Developers smart contracts and Web 3 frontend have perennial experience in international projects .

10.5 Regulatory Readiness

- 1. **Complete construction and logistics license**. Compliance with the norms of the Law "On Regulation urban planning activities " and the Customs Code of Ukraine .
- 2. **Willingness to adapt under MiCA (EU).** The project was built taking into account future European requirements for cryptoassets .

10.6 Digital Transparency

- 1. **Investor portal 24/7.** Online access to indicators workload , progress reports and expenses .
- 2. **SCADA real- time monitoring .** Tracking works equipment , energy consumption and safety .

These measures in aggregate create **reliable ecosystem** that protects interests investors and users , as well as contributes timely and high-quality implementation project .

12. Appendix: Contracts and link

- 1. **Website :** https://www.portservice.io
- 2. **Telegram:** @PortServiceICO
- 3. **Email:** info@portservice.io

4. **Office address :**

3, 1 Travnya St., Chornomorsk, Odessa region, 68000, Ukraine