

# GROTTO TECHNOLOGY

Delivering business process automation solutions, built on blockchain technology and smart contracts.

Whitepaper

# Contents

- Disclaimer .....2
- 1. Introduction.....3
- 2. About Us .....3
- 3. Market Information .....3
  - 2a. Market Size .....4
- 4. Description of the Problem .....5
- 5. Our Solution.....6
  - 5.1 Stage I .....6
    - Blockchain and Smart Contracts.....7
  - 5.2 Stage II and III .....8
- 6. Token Sale.....8
  - 6.1 The Token .....8
  - 6.2 Token Summary.....9
  - 6.3 Factors Influencing Grotto Token Price Growth.....9
- 7. Use of Proceeds ..... 10
- 8. Development Plan ..... 11
- 9. Road Map ..... 12
- 10. Story and Team..... 12

## Disclaimer

Please read the following notice carefully. This notice applies to all persons who view this Whitepaper. Please note this notice may be altered or updated. You should therefore read it in full each time you read this Whitepaper.

The Whitepaper has been prepared solely in respect of the Company's intent to raise funds to support the development of a project. No shares or other securities of the Company are being offered for subscription or sale in any jurisdiction pursuant to the Whitepaper. The Whitepaper is being made publicly available for information purposes only and does not require any action to be taken. The Whitepaper does not constitute an offer or invitation to any person to subscribe for or purchase shares or any other securities in the Company.

The shares of the Company have not been, and will not be, registered under the United States Securities Act of 1933, as amended (the Securities Act), or under any securities laws of any state of the United States and may not be offered or sold in the United States, except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act.

### Forward-looking statements

Some of the statements in the Whitepaper include forward-looking statements which reflect the Company's and/or the Directors' current views with respect to financial performance, business strategy and future plans. Statements which include the words "expects", "intends", "plans", "believes", "projects", "anticipates", "will", "targets", "aims", "may", "would", "could", "continue" and similar statements are of a future or forward-looking nature.

All forward-looking statements address matters that involve risks and uncertainties. Accordingly, there are or will be important factors that could cause the Company's actual results to differ materially from those indicated in these statements. Any forward-looking statements in the Whitepaper reflect the Company's current views with respect to future events and are subject to risks, uncertainties and assumptions relating to the Company's operations, results of operations and growth strategy.

These forward-looking statements speak only as of the date of the Whitepaper. The Company undertakes no obligation publicly to update or review any forward-looking statement, whether as a result of new information, future developments or otherwise. All subsequent written and oral forward-looking statements attributable to the Company are expressly qualified in their entirety by this paragraph.

No statement in the Whitepaper is intended as a profit forecast and no statement in the Whitepaper should be interpreted to mean that the earnings of the Company and/or the earnings per share for the current or future years would necessarily match or exceed the historical published earnings of the Company and/or earnings per share.

## 1. Introduction

Grotto Technology (“Grotto”) aims to deliver business process automation solutions, built on blockchain technology and smart contracts. We will unite commercial buyers and sellers in a decentralized, open and fair network, enabling the execution of business processes across whole industries and participants. This will allow businesses to generate economies of scale through the ability to interact with anyone on the network. The smart contract technology that underlies the platform will provide an automated and transparent system for performance of business processes.

The Grotto platform is the solution for the most crucial business problems, such as limitations due to the lack of information, lack of infrastructure, lack of transparency, and consequently, lack of trust.

Fundraising, with the use of Grotto Technology Supply Token (“GTST”), will help to support product development and sales and marketing for the deployment of the platform. GTST is an internal currency of the Grotto platform and will be used as one unified token for all transactions across multiple industries. The different sectors of industries will create an intricate ecosystem with thousands of interconnected businesses, in which the token will be exchanged, and its value will be consistently on the rise. Our aim for GTST is to become the principal cryptocurrency which will largely replace sanctioned currencies in multibillion dollar industries over the course of several years.

Grotto’s first automation solution will be Supply: a patent pending business process automation solution for businesses in the beverage industry.

## 2. About Us

Enterprises have been using software for decades to automate business process and reduce costs. Software has only been available to large organizations whose size and economies of scale support the excessive capital investment needed for such systems.

Grotto Technology's vision is to connect businesses, so they can run better, cost effectively, simplify and improve people lives. Our mission is to develop business process automation for businesses of every size through cloud-based software services that leverage the power of smart contracts and blockchain.

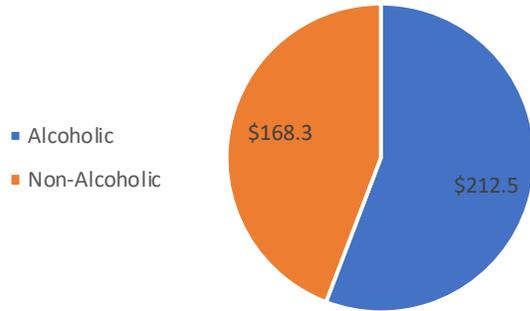
Our first product innovation, Grotto Supply, will revolutionize the way beverages are marketed, sold, and delivered to the market. Grotto Supply’s technology will streamline the beverage sales process and bring software to thousands of small businesses that currently do not have access to modern technologies. Funding for this project also provides an opportunity to join an evolutionary change in the way one of the United States’ largest industries does business. Further, it is an opportunity to enter an industry whose barrier to entry, due to regulatory, economical, and exclusive agreements, are enormous.

## 3. Market Information

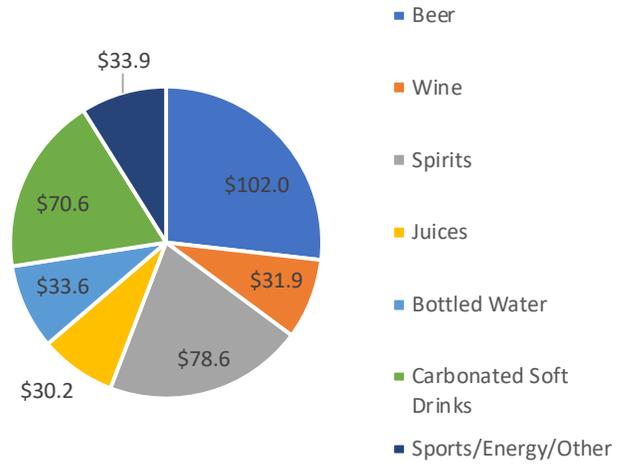
The beverage industry in the United States generates over \$380 billion in sales annually. The industry is comprised of tens of thousands of wholesalers, many selling in exclusive, franchised territories, and hundreds of thousands of retailers. In addition, businesses selling alcoholic beverages operate under state authorities, each with their own unique regulations, that regulate the sale and distribution of alcoholic beverages within their borders.

## 2a. Market Size

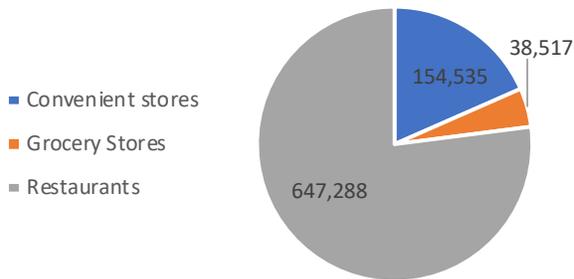
### Annual Sales by Type



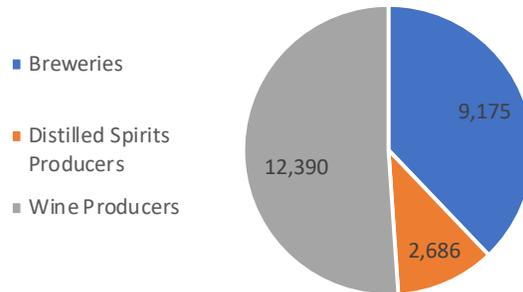
### Annual Sales by Category



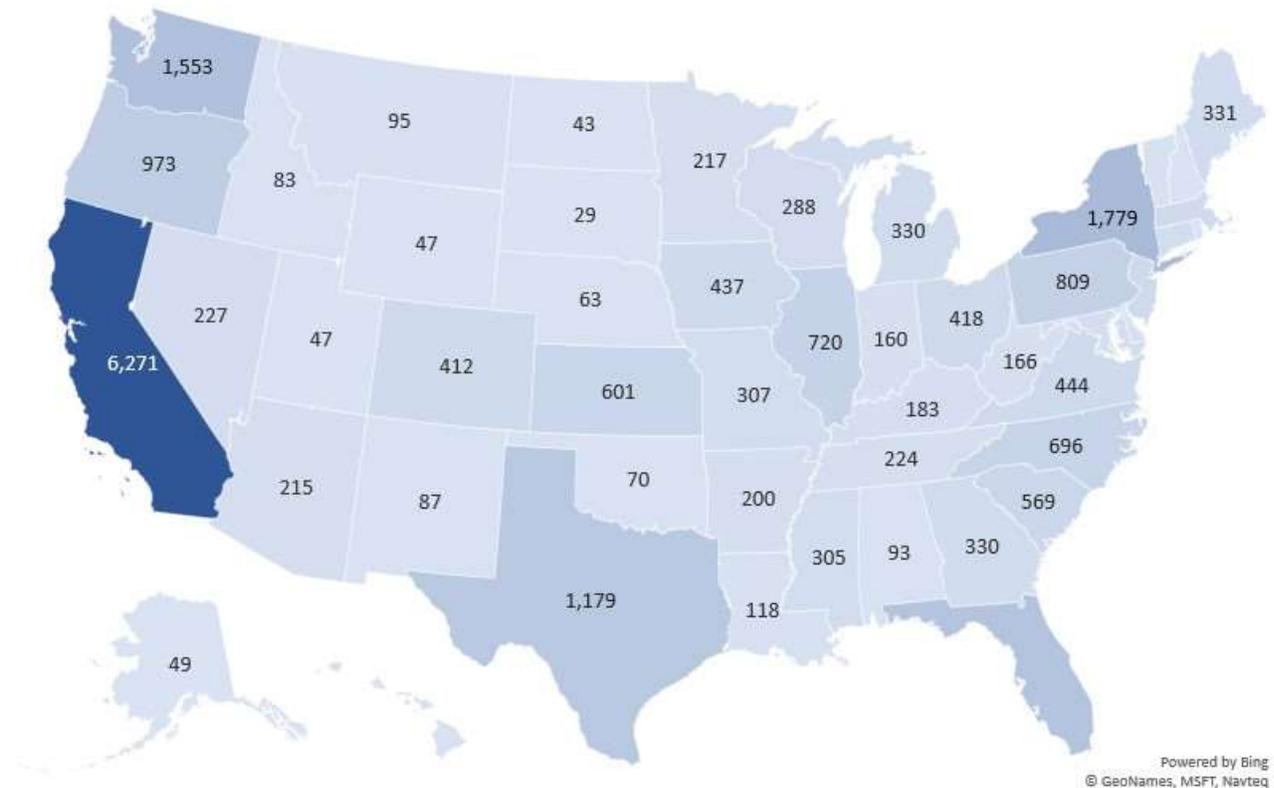
### Retailers



### Manufacturers



## Wholesaler by State Total: 24,412

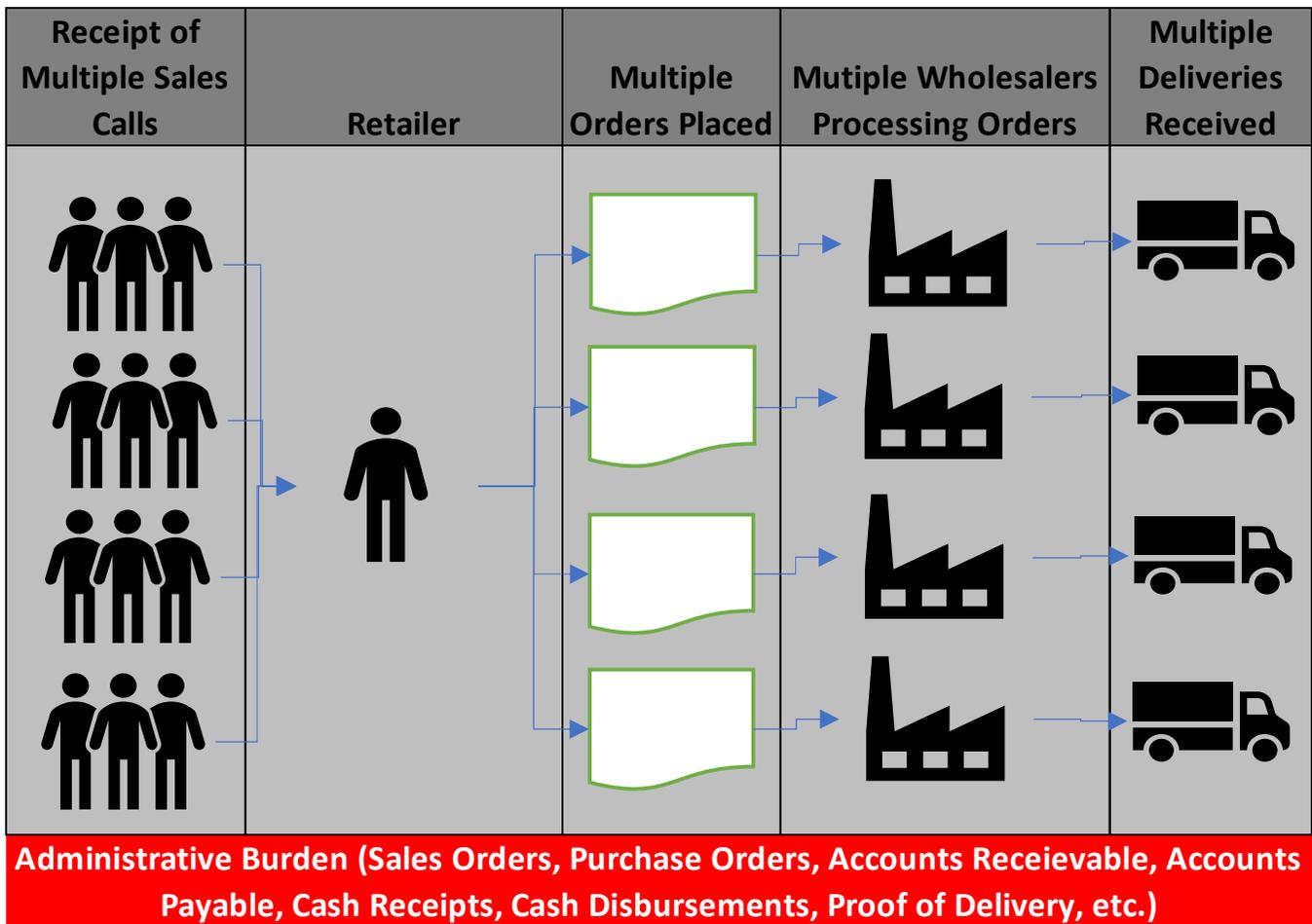


### 4. Description of the Problem

The three-tier system of alcohol distribution separates the manufacturer from the retailer, requiring the retailer to purchase alcoholic beverage from wholesalers who typically carry multiple products from multiple manufacturers. To fulfill orders, retailers must place orders with multiple vendors resulting in an administrative burden that leads to long purchasing cycles, stock outs, and tracking issues. In addition, retailers are limited on product selection due to inefficient and ineffective sales channels. Sales are performed in two ways. Either through outside sales forces using direct sales techniques or wholesalers have established proprietary ordering systems. Direct selling is extremely inefficient. Orders are placed face-to-face, phone, email, or facsimile. This process is prone to error and loss of data. Proprietary ordering systems are fragmented, require separate knowledge of each system, and are focused on improving efficiencies for the wholesaler only.

The current sales methods, described above, is for the benefit of the wholesaler and fits within their sales process. With retailers having to use multiple wholesaler's processes, inefficiencies are created in the retailers purchasing cycle. For example, the retailer only learns about the products the wholesaler's sales personnel wants to sell, and not what is trending or available in the market. The retailer can find products through self-investigation but would lack the ability to see what is available in their market. All methods in this process are inexact, prone to error, and limit the retailer on product knowledge to benefit the wholesaler and the manufacturers they sell for.

#### **Current Way of Doing Business**



## 5. Our Solution

### 5.1 Stage I

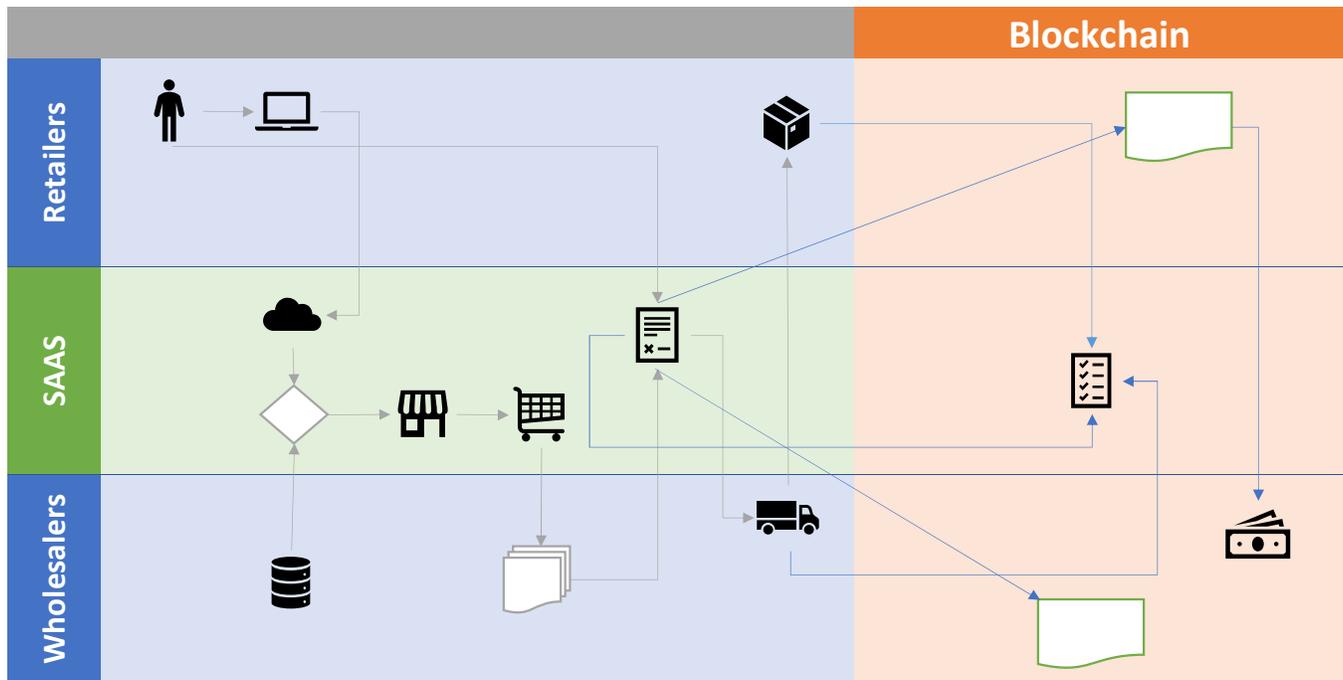
As stated above, the three-tier system of alcohol distribution separates the manufacturer from the retailer, requiring the retailer to purchase alcoholic beverage from wholesalers who typically carry multiple products from multiple manufactures. To fulfill orders, retailers must place orders with multiple vendors resulting in an administrative burden that leads to long purchasing cycles, stock outs, and tracking issues. In addition, retailers are limited on product selection due to inefficient and ineffective sales channels. Sales are performed through outside sales forces using direct sales techniques or wholesalers have established proprietary ordering systems. Direct selling is extremely inefficient. Orders are placed face-to-face, phone, email, or facsimile. The process is prone to error and data loss. Proprietary ordering systems are fragmented, require separate knowledge of each system, and are focused on improving efficiencies for the wholesaler.

Grotto Supply solves this problem by allowing a retailer, via a cloud-based software application, to search for available product options simultaneously across all wholesaler products, filtered based on geography. The software will improve a retailer's ability to identify all products available in their geographic area, place just-in-time orders for the products and track every stage from ordering to delivery; reducing the number of orders that have errors, are lost, or aren't available. In addition, sales channels will be improved as they will be able to see all products available not just ones that sale person wants to sell. Grotto Supply provides a single source of ordering, eliminating the fragmented systems. Order speed will be improved as there will not be a need to wait for sales people to arrive to place an order.

The Grotto Supply software significantly changes the industry from how business currently exists. There is no single platform that consolidates product availability and the purchasing cycle between a single retailer and multiple wholesalers.

Other systems, including software, that currently or previously existed were not directed to providing the retailer with a consolidated source of all available product nor did they attempt to provide the retailer with a purchasing process that mimic a single source vendor. Using such systems, then, were inefficient, time-consuming process and created no economies of scale for the wholesaler or retailers supply-chain.

The software will map all wholesalers, their products, and geographical sales territories and make it available to retailers in a single platform. Retailers are then able to place a single order and the software will automatically distribute those orders to the wholesalers according to specified criteria.



The web application and related software acts as the central hub for purchasing activity between wholesaler and retailer. By using common attributes between wholesaler products and the retailer’s business, the retailer is matched with relevant products that are available to purchase in their geographic area. The retailer can identify and order product, without wholesaler bias. After orders are placed, the software sunders orders and sends them to the respective wholesaler for subsequent acknowledgement and delivery.

1. Marketplace: attributes of retailer’s profile and wholesaler’s product are stored separately. Upon retailer log in to web application the attributes of the retailer and the wholesaler products are matched, and products are only displayed in the marketplace for the retailers view that matched certain criteria between the retailer profile and wholesaler products.
2. Sunder orders: products selected for purchase by the retailer are collated in a cart. At checkout the products are sunder onto separate order acknowledgements by wholesaler based on product attributes.
3. Order confirmation: upon receipt of order from retailer, wholesaler must determine whether products are available, in the quantity and package type requested. Wholesaler will notify retailer when exceptions exists and will provide for substitutes, short order, and cancellation of product.

#### Blockchain and Smart Contracts

As described in section 3, there is an inherent administrative burden, for both parties, created through the traditional purchasing/sales process. The paper trail created includes: purchase order, sales order, accounts receivable, accounts payable, invoice, packing slip, bill of lading, cash receipt, cash disbursement, and deposit. Once all these steps are completed, manual reconciliation is typically required to ensure controls functioned as designed and to detect errors that may have occurred.

Further the creation of this paper trail requires multiple entries to be manually made in companies ERP/Accounting systems. While ERPs control many fields, they are prone to error as human interaction is required for: purchase order, purchase receipt, accounts payable, cash disbursement, sales order, accounts receivable, and cash receipt. Human interaction in this process leads to errors including, but not limited to: unfulfilled orders, incorrect product shipped, incorrect quantities shipped, duplicate invoices, credit holds and short payments.

Using a smart contract and token on the Ethereum blockchain network, Grotto Supply will automate these processes, eliminate the need for error prone human data entry, and streamline the cash receipts and disbursement process ensuring wholesaler receives payments on terms and that retailers only pay for goods received at prices agreed.

Once orders are confirmed by the retailer and wholesaler through the web application a routine will run that will push sales order information to the wholesaler and purchase order information to the retailer. Once receipt of goods is confirmed by the retailer, an additional routine will run to confirm that the sales order and purchase order have been closed and corresponding accounts payable and accounts receivable entries have been made by the retailer and wholesaler, respectively. Further, a smart contract will be created for the physical currency settlement of the transaction. The contract parameters will consider the credit terms offered by the wholesaler and once the credit terms have expired the contract will execute, transferring the correct value of tokens from retailer to wholesaler. After the execution of the contract, a final routine will run to confirm to confirm the accounts payable and receivable entries have been properly cleared off the companies' ledgers.

## 5.2 Stage II and III

The Stage I solution described above represents the minimal viable functionality to perform basic transactional functions that are needed to go to market. Proof of concept has been developed and the solution is patent pending. After reaching a certain level of adoption there is additional functionality that has commercial value that will be developed and deployed. Commercial value will be present due to the large volume of data available on product sales and customer information and because of the number of users on the network. Additional functionality, includes, but may not be limited to:

1. Price optimization
2. Inventory optimization
3. Schematic optimization
4. Product and sales analytical reporting
5. Website advertising
6. Product promotions
7. Marketing campaigns
8. Automated ordering

## 6. Token Sale

### 6.1 The Token

Grotto Technologies network will have its own token: Grotto Technology Supply Token ("GTST"). GTST is based on ERC20 Ethereum Token standard.

GTST will be used for as a monetary exchange on the Grotto Technology network as consideration for the receipt of goods or services and for the automation of purchase/sale cycle (as described above under "Blockchain and Smart Contracts").

All tokens will be created during the Token Sale period. The number of tokens is limited, and the subsequent issuance of tokens is technically impossible. The smart contract guarantees that the Token allocation plan will remain unchanged, it will be impossible to create more than 1,000,000,000 tokens. It means that after being listed in an exchange the token's price will depend exclusively on market demand and not on technical manipulations.

GTST tokens will cost 0.0020 Ethereum (approximate value of USD \$1.00). Token buyers during the early sale of the token will a discount on the price as an award for early participation.

The GTST is based on the Ethereum blockchain. Its implementation corresponds to a widely distributed standard. This allows token holders to easily store and manage them using existing implementations of Ethereum wallets.

The GTST will be freely traded on crypto-exchanges.

### 6.2 Token Summary

The following is a summary of the token, distribution, and token sale period.

Description		GTST		
Maximum Tokens Created		1,000,000,000		
Tokens Reserved		300,000,000		
				Approx USD (\$500 USD/1 ETH)
Fund Raising Tier	Date Open	Max GTST Sold	Token Price (ETH)	
Pre-Sale Tier 1	Jul 01 2018 - Jul 14 2018	60,000,000	0.001000	\$ 0.50
Pre-Sale Tier 2	Jul 15 2018 - Aug 04 2018	48,000,000	0.001250	\$ 0.63
Pre-Sale Tier 3	Aug 05 2018 - Sep 03 2018	40,000,000	0.001500	\$ 0.75
Pre-Sale Tier 4	Sep 04 2018 - Jan 31 2019	276,000,000	0.001750	\$ 0.88
Crowdsale	Feb 01 2019 - Jun 30 2019	276,000,000	0.002000	\$ 1.00

### 6.3 Factors Influencing Grotto Token Price Growth

Because the number of tokens is limited, and subsequent issuance is not allowed, the price of GTST will be determined by demand. Demand for GTST will grow due to several factors, including, but not limited to:

- Transactions will be executed in GTST. Accordingly, increase in network members' trading volume will increase demand and for tokens.
- The volume of the potential market supported by GTST significantly exceeds the tokens' market capitalization at the time of the Token Sale.
- Grotto Technology has a patent pending technology, thorough road map for product development, and marketing and sales plan that will consistently increase the project's audience and increase the level of adoption.
- Grotto Supply will have partners preceding the official launch who will provide an active client base.

## 7. Use of Proceeds

After deducting offering expenses, we estimate that the net proceeds from the sale of GTST will be \$608 million if the Maximum Offering Amount is sold. After deducting estimated offering expenses that are payable by us, we estimate that the net proceeds from the sale of GTST will be \$608 million if the Maximum Offering Amount is sold. These estimates are based upon an assumed Ethereum price of \$500/USD \$1. A 10% increase (decrease) in the price of Ethereum would increase (decrease) the net proceeds to us from our offering by \$60.8 million at maximum, assuming the number of tokens offered by us, remains the same and after deducting the estimated commissions and estimated expenses payable by us.

We plan to use the net proceeds of our Offering for business development and working capital purposes, which may include but not limited to investment in the research and development of Grotto Supply Network, sales and marketing activities, customer service and support, forming strategic partnerships with established companies selected by the Company, and general capital purposes. We may also use a portion of these proceeds for the acquisition of, or investment in, technologies, solutions or businesses that complement our business, although we have no present commitments or agreements to enter into any acquisitions or investments.

The Company intends to develop Grotto Supply in three stages as set forth below:

- Stage I: establish Grotto Supply to provide the minimal viable functionality to perform basic transactional functions;
- Stage II: expand network utilization and industry adoption and develop compliance tools;
- Stage III: establish advanced functionality using artificial intelligence (AI) and machine learning, providing in-depth industry data, analytics, and expand business process automation.

The following chart provides the approximate use of net proceeds from this Offering in the event that we are able to raise \$10 million, \$30 million, \$300 million and \$600 million.

**If the following amount is raised in this Offering (\$M)**

<b>Gross Proceeds</b>	<b>\$10.0</b>	<b>\$30.0</b>	<b>\$300.0</b>	<b>\$600.0</b>
Estimated Offering Expenses	\$0.8	\$2.4	\$24.0	\$48.0
<b>Estimated Net Proceeds</b>	<b>\$9.2</b>	<b>\$27.6</b>	<b>\$276.0</b>	<b>\$552.0</b>

<b>Use of Net Proceeds</b>					
Research and development	Complete Stage I	Complete Stage II and part of Stage III	Complete Stage II and III	Complete Stage II and III	
	Estimated budget	\$5.5	\$13.8	\$165.6	\$220.8
Sales and Marketing	Development of outside sales force.	Use outside and inside sales force, press releases, radio and television media, commercials and influencers and bloggers to market network	Use outside and inside sales force, press releases, radio and television media, commercials and influencers and bloggers to market network	Use outside and inside sales force, press releases, radio and television media, commercials and influencers and bloggers to market network	
	Estimated budget	\$1.4	\$5.5	\$55.2	\$110.4
Partnership develop and acquisition				Develop partnerships for the selling Grotto Supply and making strategic acquisitions for vertical market integretion	
	Estimated budget	\$0.0	\$0.0	\$0.0	\$110.4
Customer Service & Support		Customer on-boarding, training, and technical support	Invreased customer on-boarding, training, and technical support	Invreased customer on-boarding, training, and technical support	
	Estimated budget	\$0.0	\$2.8	\$27.6	\$55.2
General working capital	Administrative expenses	Increased administrative expenses due to the increased size of business and operations	Increased administrative expenses due to the increased size of business and operations	Increased administrative expenses due to the increased size of business and operations	
	Estimated budget	\$2.3	\$5.5	\$27.6	\$55.2
<b>Estimated Total Budget</b>		<b>\$9.2</b>	<b>\$27.6</b>	<b>\$276.0</b>	<b>\$441.6</b>

## 8. Development Plan

Grotto Supply will be a C# program run on the .NET Framework and will be deployed on an industry leading cloud platform (i.e. Microsoft Azure or Amazon Web Services).

The application will be a Cloud computing platform which will allow users on the network to access the application over the internet and no local computing assets will be required. The cloud computing will provide shared computer processing resources and data to computer and other devices on demand.

API's will be deployed through the Grotto Supply application to communicate with and establish smart contracts on the Ethereum Network and to interact with client-side enterprise accounting systems.

