ENGINEER.AI - THE NAYA TOKEN

BESPOKE SOFTWARE MADE SIMPLE WITH AI AND BLOCKCHAIN

WHITEPAPER V4.01

NON DISCLOSURE

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It is also acknowledged by the reader of this business plan that the information furnished in this business plan, other than information that is in the public domain, may cause serious harm or damage to Engineer.ai and will be kept in the strictest confidence.

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ACRONYMS

- E.ai: Engineer.ai
- NAYA: NAYA Token (Blockchain Token)
- **SMB:** Small and medium businesses
- CAGR: Compound annual growth rate
- GTM: Go to market
- NLP: Natural language processing
- AI: Artificial intelligence
- **UI:** User Interface
- **IPR:** Intellectual property rights
- **QA:** Quality assurance

ERC721: Ethereum based token that will NOT be offered for purchase.

OUR PURPOSE

Engineer.ai believes any idea can be made into a reality.

But, the average business owner or person with an idea is not equipped to accurately plan and specify a complex development project. Furthermore, escalating costs, wasted resources, and missed deadlines lead to an abnormally high failure rate for outsourced bespoke software projects and a lack of trust between clients and contributors. Engineer.ai is a blockchain and human-assisted artificial intelligence platform to make building bespoke software accessible for everyone. Our blockchain and AI-powered solution allow clients and creators to complete their projects with a higher success rate, more costeffectively, and with shorter production timelines than the current consultation and iteration model.

Coding and development currently exist in a 'pre-industrialized' world where up to 91% of projects fail or go over budget. Projects are dictated to delivery stakeholders by people that lack the knowledge to accurately describe how they want it to work. Delivery stakeholders then frequently write code that already exists, creating inefficiencies, higher costs, and longer timelines. Clients need to trust that delivery stakeholders will deliver their vision on time, on budget and to their quality specifications. In return, delivery stakeholders require accurate and clear project specifications and transparent and timely remuneration for their work. But frequently, the process breaks down due to an inability to communicate needs and match expectations to delivery.

By applying blockchain technology and AI to their existing model of outsourced software development, Engineer.ai (E.ai) has created an ecosystem that removes development from the 'black box' and puts it onto an assembly line. The drag and drop UI and AI-powered Project Builder allows anyone to realize their idea, while the component library reduces redundancies in development as existing code is automatically paired to projects. The NAYA Token then allows contributor payments to be escrowed until deliverables have been met and verified by an independent source. To ensure the longevity of all projects, AI-powered CloudOps reduce ongoing costs and remove the need for an in-house development team to maintain the project

E.ai will become the ecosystem for a new approach to software development. Businesses of any size will be able to create and own custom software without risking over-budget projects or unexpected failures. Delivery stakeholders will receive clearly defined project briefs and development plans at the atomic unit. Al and machine learning will optimize production and maintain functionality at a lower cost and without the need for a full-time development team. This creates a lower barrier to entry for the large and growing market of non-coders that have software requirements. Outsourcing development will be made easier, more accessible, cheaper, and simpler to maintain, and becomes a viable option for more and more businesses with digital requirements.



THE PROBLEM: 'BLACK BOX' DEVELOPMENT

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Software development, as an industry lacks transparency. Creating software is seen by small businesses as a 'black box' process that takes an unknown amount of money and a speculative amount of time to complete. There is an information gap between clients and developers, or any stakeholder in the process. This not only hurts the underlying businesses and their ability to establish an effective digital presence, but also creates an artificial barrier to the growth of the overall market for bespoke software.

On average, only 30% of ideas result in a successfully completed project with a large portion falling wayside because people don't have the knowledge to manage their projects. In the SMB/SME space, where there are skill-set gaps by nature, the success rate is as low as 9%¹. Our potential audience is people who don't really understand technology, don't want to learn to code, or have no experience building software. Currently, the people who are delivering the services are developers turned product or project managers who are still stuck in the time and material model of delivering². E.ai will attract SMBs (whether they are a standalone, startup, or a part of a larger company) that are unable or unwilling to use the current software developer-for-hire systems. These arrangements can easily turn bad, as deadlines are missed, costs overrun and sub-quality code exposes companies to risk. According to Engineer.ai Inc.'s own research, 76% of companies' outsourcing projects tend to go over budget, while more than 60% fail due to some sort of vendor-related or management issue.



Sachin Dev Duggal, Co-founder and CEO Ex-Nivio, Ex-Deutsche Bank

"In the various businesses we have built over the past two decades, we've had a tough time grappling with issues as we ourselves tried to outsource.Welearnedovertimethatourpeergrouphadthesameissues; specifications were hard to do and choppy, pricing was always opaque, and transparency was only great when everything was smooth. As the customer of outsourcing changed, the model of outsourcing didn't so the probability of a successful outcome was heavily marginalized." "Relationships with vendors always start out great—you agree on a price and a timeline, but a few weeks or months into the relationship, the vendor goes dark or something goes bad. Our aim is for [outsourcing services] that have complete transparency and predictability."

¹ https://www.projectsmart.co.uk/white-papers/chaos-report.pdf

https://www.cio.com/article/3068502/project-management/more-than-half-of-it-projects-still-failing.html

^{2 &}quot;Appendix 2"

The traditional outsourcing model of development is fraught with problems which fall into two broad categories: The Delivery Process and Stakeholder Trust (customer, designer, developer, QA etc). These two categories then exhibit one or more of the following problem sets:

CUSTOMER PROBLEM: DELIVERY RISK

Bespoke software is delivered through a time and material consulting model where the ultimate delivery risk is shouldered by the customer. The customer is not prepared for this for multiple reasons:

- They lack technological expertise
- They have never managed a project before or outsourced any software to be built
- Are unable to find the right partner, often hiring the cheapest because they don't understand the nuance
- Unsure quite what they want but will learn as they go along (spec-as-you-go)
- Are subject to generally high upfront costs without prototypes or transparency
- They are charged for software features commonly used in all apps
- Clients don't have guaranteed delivery and are subject to prohibitive termination costs
- Are forced to pay for a second version just as a result of third-party libraries changing
- Fall victim to high specification change costs
- · Face miscommunication regarding expectations and delivery, leading to high rates of failure
- Have to deal with vendors who do all design, development, and QA, thereby having a natural conflict
 of interest

These risks form a barrier to development for smaller businesses, increase the failure rate of projects, and limit the market size through preventable limitations.

VENDOR PROBLEM: PRICE, PAYMENT AND COST RISK

In addition to client risks, dev shops (software design and development firm/practice) are given weak or vague specifications hampering their ability to deliver a project. This is exacerbated by a new generation of non-tech savvy customers that are unable to fully articulate what their needs are. The results of this are:

- Costs overrun as specifications are not clear and customers are not willing to pay more
- Risk of customers holding back their payment or renegotiating when legitimate but unexpected changes come in
- Risk of litigation as customers who don't understand delays or spec changes begin to press for refunds

ECOSYSTEM PROBLEM: TRUST RISK

Problems exist within the bespoke software ecosystem itself, as there are:

- Multiple vendors for building and operating and each blame the other if problems arise
- Multi-stakeholder delivery without an appropriate multi-stakeholder payment mechanism
- Dispute and delivery approval handled by a single entity

With the move to smaller agencies and crowdsourcing sites, these issues have worsened. Vendors now worry they won't get paid and customers are paranoid they will not get delivery. Most crowdsourcing sites are effectively either listings of talent or buyer-side marketplaces which further exacerbate the problem.

- Vendors try to pitch to be the lowest price to a customer who has not established a clear specification, this marks the start of a broken journey and high delivery risk
- The customer ultimately verifies the delivery, meaning there is payment risk to the vendor

As an existing platform for software development, Engineer.ai has a complete overview of how imprecise this process can be for all stakeholders involved. However, the demand for bespoke software continues to rise, presenting a market opportunity to streamline development and give more people an entry point to bespoke creations.

THE BESPOKE SOFTWARE MARKET IS GROWING FAST



The current market demonstrates great potential for growth. Overall, the larger enterprise software segment grew 10% annually from \$430 billion in 2011 to \$620 billion in 2015. Within this period, we witnessed a 33% compound annual growth rate (CAGR) in Custom-Built Software³.

The bespoke market also refers to more than just applications. It extends across Application Outsourcing, Consulting (roughly 30%), System Integration/Project work (roughly 50%), Custom Software by Contractors, and Mobile apps built by contractors. This lead to a 2015 value of \$450 billion for the bespoke software market⁴.

Following a growing audience, in line with an expanding SMB marketplace, and the 40 million companies⁵ who are going through a digital transformation exercise every year, this market size grows to just over \$3.4 trillion in just 5-10 years.

WHAT IS DRIVING GROWTH IN THE OUTSOURCING OF BESPOKE SOFTWARE?

Clients have software needs that are not directly related to their core offering. The company is too small or not appropriately staffed to create the project so they rely on outsourced development.

In addition:

- Most large enterprises are investing more in mobile and web applications because of consumer preferences.
- Building an in-house full-stack team is a huge commitment and the mobile app lifecycle means longer-term outsourcing (e.g. testing, infrastructure is a more profitable model
- Enterprises can make use of best-in-class vendors to take ownership of mobile app elements when directly relevant to their core competencies.

Despite broken processes, the demand for bespoke software is increasing. Engineer.ai's transparent, clear, and easy to use process will unlock value worth trillions in this market.

^{3 &}lt;u>"Appendix 2"</u>

^{4 &}quot;Appendix 3"

^{5 &}quot;Number of Worldwide Business Start-Ups Each Year? - LeRumba." 7 Nov. 2015, <u>https://www.lerumba.com/Directory/shocking-number-of-worldwide-business-start-ups-each-year-article-39.aspx</u>. Accessed 6 Jul. 2018.

OPPORTUNITY WITHIN THE MARKET

Each year, 40 million businesses undergo a digital transformation that requires a custom-built solution. 100 million new businesses enter the market. The average spend for 90 million of these bespoke projects is \$40,000⁶. Over three years, a market penetration of just 0.0018% would provide revenue of \$60 million, over three years.



The buyer of the outsourced solution has changed from the large-scale CIO to the dreamer and everyone in between. We will focus on independent SMBs or business groups that exist within large companies. The potential for growth in this market is vast.⁷ The number of people building tech is increasing exponentially with an overall market size potential of \$3.4 trillion.⁸

^{6 &}quot;Appendix 6"

^{7 &}lt;u>"Appendix 3"</u>

^{8 &}quot;Appendix 4"

Engineer.ai is an established platform with an existing network of approximately 26,000 engineers, 5,000 customers across products, \$23M in platform revenues with 150 percent year on year growth.

This existing platform, brand, and customer base will implement the blockchain technology, artificial intelligence, and token ecosystem outlined in this project to scale the size of the business. Increased transparency and efficiency created by blockchain and artificial intelligence will establish a new standard for trust and delivery in the bespoke software industry and capture the market of SMB's that have been failed by the current process of outsourced software development.

SOLUTION ABSTRACT

Engineer.ai is rethinking how software development is outsourced and is disrupting an industry that will grow to be worth over \$3 trillion. Whether it is building new technology or operating existing cloud deployments, Engineer.ai will revolutionize the entire lifecycle of bespoke software and put production on the assembly line.

This strategy is based around two key philosophies:

- **Build** Put everything on an assembly line that uses Automation (AI and generic) to do anything that is repetitive and uses distributed human teams to focus on the unique elements of the project.
- **Operate** Aggregate demand, optimize it significantly (to generate a better yield), and then consolidate supply. Engineer.ai will provide one bill for all operating ingredients, whether cloud or microservices that are included in the software.

We have designed our platform to address the issues of delivery and trust through separate but connected layers. Our Human-Assisted AI focuses on everything related to delivery, from specification to pricing, assembly, project management and final product delivery. Our NAYA Trust Platform then creates a multi-stakeholder solution for identification, delivery assurance, IPR, security, dispute resolution and stakeholder payments, removing the need for blind trust in the process.

THE DELIVERY PLATFORM

Engineer.ai provides a turnkey platform that takes people with an idea and no know-how and lets them build and operate any bespoke digital project. Once built, it gives everyone a single platform for receiving updates ("BuilderCare") and a marketplace for all the cloud services and microservices needed to run the idea. This model can be compared to how you buy an iPhone, buy AppleCare, and then buy apps from the App Store.

The platform suite allows our customers to benefit from price, speed and operational efficiency without the need to be technically savvy. Software delivery is split between the three components of the platform:



Builder

leverages Human-Assisted Artificial Intelligence that runs the assembly line platform for building bespoke software and uses a distributed trust network to manage identification, delivery assurance, IPR, security, dispute resolution, and stakeholder payments.



BuilderCare

operates a warranty service that allows customers to get updates to their bespoke software as third-party libraries (Facebook API's for example) decay over time and support to ensure their projects keep running after delivery.



(Platform/Marketplace)

leverages Artificial Intelligence and machine learning to optimize the management and expenses of cloud infrastructure in the most cost-efficient manner. Enables customers to get a discounted single bill for all 3rd party services required by the Software.

THE NAYA DISTRIBUTED TRUST PLATFORM

In unboxing the current "black box" model, it is critical to create a distributed trust platform that aligns customers, developers, and quality control without having to focus on payment, delivery, or negotiation.

The NAYA distributed trust platform allows everyone to focus on producing quality work, accurately verifying elements, and delivering projects on time within budget. It is effectively a delegated proof of stake system that utilizes escrow Smart Contracts, and that has everyone "stake" in while utilizing a score-based reputation system to allow for independent dispute resolution through quality control. Clients deposit a weekly amount of tokens that are managed by Smart Contract. Each deliverable and milestone is verified by multiple, independent sources that also stake NAYA tokens on their work. Successful elements and achieved goals will automatically release funds to contributors and the blockchain ledger of transactions will remove disputes of payment, delivery, and asset ownership. The NAYA Trust Platform will also extend our building block library making it into a true marketplace of features. Independent developers can build required components knowing that they will get paid the minimum bounty plus a share of royalties from future use. These funds will be released automatically via Smart Contract as those blocks are used in multiple different customer software. The use of a distributed trust platform removes the question of delivery and accountability for the client and guarantees payment for accurate work from each contributor. We have removed the need for one side to take a 'leap of faith' when creating bespoke software and made each stage fair, transparent, and 100% verifiable for every stakeholder involved in the project.

THE BENEFITS OF AN INDUSTRIALIZED ECOSYSTEM

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The Engineer.ai ecosystem and distributed trust platform creates four major benefits for all parties within the system:

CONFIDENCE



Engineer.ai creates client confidence in software development by making third-party outsourcing simple and accessible to anyone. The Builder and Al-assisted project management features allow people to accurately plan their software build regardless of their technical knowledge or ability to code.

As software development becomes a requirement for smaller businesses and non-tech organizations, lowering the amount of expertise required to get a project built will create a significant market opportunity. The decentralized ecosystem and user-centric platform will give more people and businesses the confidence to outsource their idea, and the tools to succeed. Confidence also goes beyond just building. Clients know they will receive the best price and the most efficient way to buy Cloud Capacity and Microservices, letting small business accurately project manage their developments.

TRUST



Clients need to trust that the requirements they specify will be delivered on time, on budget and to their requirements. Contributors need to trust that they will receive accurate project specifications and timely payments. Through Smart Contract resource release, developer quality assurance and budget availability reliant on independently verified deliverables, clients know that their product will be built within the budgetary, time and quality parameters they set.

The Engineer.ai platform ensures that:

- Clients don't have to rely on instinct to choose teams as they may not have the technical knowledge to
 accurately vet people
- · Contributors will not have to work with vague and limited briefs
- Quality assurance is performed by independent stakeholders

VALUE

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Project requirements are matched to a predefined suite of components (building blocks that include code, design and project management and infrastructure project plans) allowing customers to only pay for what is bespoke to them, cutting both timeframes and duplicate work. Existing components ("building blocks") are added to the project reducing work and resulting in a more technically complete brief.

CloudOps are assisted by AI to aggregate usage across all clients driving a better price for all customers through smarter purchasing and predicted usage; coupled with a Wallet that makes using the Cloud a lot more controlled and, in many cases, predictable. The entire ecosystem is designed around aggregating fragmented demand, optimizing it and then consolidating supply. Value is created by removing waste, consolidation and platform volume arbitrage. Client projects are made more cost-effective and inefficiencies are removed from the creation process.

QUALITY



Clients are assured that they can maintain their software without an in-house development team because all successfully built projects are automatically hosted, maintained, and updated via CloudOps, using AI to reduce web service costs and optimize output. This ensures that all fully-delivered projects never stop working.

E.ai's Builder delivers quality through multifaceted quality assurance. Using a combination of AI, autonomous testing and manual QA teams from the capacity network, Builder uses multiple QA Engineers that are not aware of each other and split into two rounds. All delivery stakeholders are required to stake a number of tokens in order to accept an assignment, which means they are invested in producing the best possible quality of work. Their work will then be verified by another delivery stakeholder on the network, thereby acting as an approval process for the first round.

The benefits of a decentralized ecosystem for software outsourcing will improve the process for clients and delivery stakeholders and reduce the cost and failure of new projects.

To implement these changes, Engineer.ai is building a blockchain and AI-powered solution that will create trust through transparency and value via delivery optimization.

BLOCKCHAIN TRANSPARENCY AND AI EFFICIENCY

HARNESSING BLOCKCHAIN FOR TRUST AND TRANSPARENCY



Compared with current centralized systems of software outsourcing, blockchain technology removes the need for both parties to rely on an element of trust. Engineer.ai's Builder Platform creates client and delivery stakeholder confidence and trust through clear deliverables, transparent payment processes, multi-stakeholder approval, and tokenized contributor and asset tracking.

The distributed escrow system of payment assures both the quality of delivery (payments are only released after stakeholder approvals) and a guarantee of payment as clients pay into a wallet that holds payment. The element of trust between client and delivery stakeholder is no longer required, projects and payments are mutually assured through the following blockchain elements of the project:

ESCROWED PAYMENTS



Lack of transparency regarding payment is one of the major causes of mistrust between clients and delivery stakeholders. The current consultant based model contributes to this by making the client solely responsible for the release of payments when they may not be equipped to accurately verify the completion of the work.

There are also other issues that make payment for bespoke software a recurring problem for clients and delivery stakeholders:

- Multiple vendors for building and operating that blame the other for project flaws
- Multi-stakeholder delivery without a multi-stakeholder payment mechanism
- Dispute and delivery verification is completed by the same stakeholder

Builder uses a delegated proof of stake system that utilizes escrow Smart Contracts, and that has everyone "stake" in while utilizing a score-based reputation system to allow for independent dispute resolution through quality control.

Each project has an associated Smart Contract (this Smart Contract also contains a salted key mechanism for the security of inter-app communication) which acts as an escrow. At the beginning of the project and every week, the client sends their weekly payment of NAYA tokens to the Smart Contract and signs off on the project milestones which are defined in their client dashboard.

The client can cancel development at any time, and upon doing so, the funds for the past weeks are released from the Smart Contract as payment, and any surplus post the notice period (1 week) is refunded to the client. During the course of the project, as a milestone is met and the client verifies its completion, funds from the Smart Contract are automatically released.

Once the project is completed, a set of QAs sourced from the contributor network verify the successful delivery of the project after which the project is handed over to the client for verification. If the client identifies any issues post-delivery, the QA stakes are forfeited and given to the client as remuneration. The issues are then assigned to developers on the network to fix, and the cycle then repeats. Once the client has successfully verified delivery, the remaining funds from the Smart Contract are released.

RATED STAKEHOLDERS



Through facial recognition automated scoring (for Developers initially), customer and product manager feedback, we are able to keep a real-time score of the delivery stakeholders that are stored on the blockchain and can be added to by any of our foundation partners.

AI OPTIMIZATION

Engineer.ai utilizes artificial intelligence (AI) and machine learning to provide better transparency, shorter production timelines, and more cost-effective development. Through AI-assisted project management and optimization of resources, there will be clear, accurate communication between parties and visibility on pricing and delivery targets.

AI PROJECT BUILDER



Al and machine learning enable more accurate quotes, including optimizing pricing for new feature requests and change orders. The Al-powered engine will find and apply reusable components and deliver access to required resources faster than ever by learning from past build projects. Al will find the most cost-effective way to create the functionality requested and connect the most suited delivery stakeholders to the project. Repetitive tasks that consume time and budget will be eradicated. Furthermore, the risk of overpaying through duplication or human error is mitigated whilst existing components are re-used rather than re-built.

Data science, natural language processing, and machine learning are integrated throughout the development process using the following features:

- Ingestion BOTs. Code and Story reusability using natural language processing (NLP) and epic tags to identify stories to turn into templates. We use pattern matching to identify stories that make up the core framework of a feature. Code BOT runs after project completion to create library pods from new developments. NLP and machine learning are then used to parse code blocks.
- **PM BOTs.** Using NLP BOTs to manage communication with the clients, project managers, and developers to include status updates, new features, and notification of delays if the project management tool is falling behind schedule.
- **Pricing.** Benchmark pricing per feature is adjusted by machine learning to take into account previous efforts for a feature in a particular classification of an app.
- S.I.M.B.A Assembly. Data Science and machine learning are utilized for understanding how to put pods together for different classification (including analysis of the "complete mix of features). Intelligent assignment of stories to contributors who have worked on something similar. Additionally creating user stories and QA Specs based on the underlying templates through machine automation.
- Project Management. Machine learning is built into a custom agile tracker that uses previous "iterations" of a feature and the assigned developers (or similarly skilled developers) to better estimate delivery and organize stories for more productive product planning, operations research, and driven developer allocation.

HOSTING AND UPDATING



At the heart of Engineer.ai is a Smart Purchasing Operations Research (OR) Algorithm that defragments the capacity used by all its customers and optimizes the order. Supervised learning (AI) processes all data and seasonal information from historical data and adjusts the commitment period made to the underlying providers. Al also guides the platform's "commitment" allocation, which applies reserved capacity discounts on infrastructure as needed, thus allowing Engineer.ai to optimize its yield curve without over-committing.

The platform delivers discounts without actually touching a customer's infrastructure. CloudOps works in a parallel dimension (financial realm) that is distant from the infrastructure so customers have complete peace of mind.

As more companies and smaller businesses transition to managed cloud services and external developers, maximizing the value of outsourcing relationships will be key to maintaining a competitive edge. We are parlaying state-of-the-art AI and machine learning capabilities to turn the IT outsourcing equation on its head, delivering a more reliable, cost-effective alternative to traditional approaches.

- Real-time and Historical Analysis of Big Data. Our platform receives a massive amount of data from the client's previous billing cycles including their usage patterns. Our AI needs to comb through the data to search for patterns to improve predictability of resource demand. We also map out how the load is seasonal and this helps us to make sure we can optimize the yield through dynamic reallocation.
- **Reserved Instance Market Analysis BOT.** Constantly researching and analyzing the Reserved Instance Market can be a complex process similar to the behavior of the Stock Market trading. It needs to have algorithms that make decisions fast and with minimal supervision.
- Yield Optimization Engine. Once the cost-effective opportunity to obtain reserved instances is available, the next step is to allocate newly available resources to a specific client or prepare Reserved Instances for future clients in the near future. This includes dynamic reallocation of resources between clients.

CLOUD TASK AUTOMATION

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Artificial intelligence improves cost optimization, cost control, and migration services by intelligently automating tasks that would otherwise be done by in-house development resources. Full automation is delivered for standard tasks such as dynamic relocation of infrastructure and resources between providers, monitoring, and backup, enabling automated maintenance and hosting after project completion.

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BUILDER: DELIVERY PLATFORM

Builder is an online assembly line platform that uses AI, a marketplace of building blocks and a marketplace of teams (sourced from the capacity network that includes dev shops / agencies and independent freelancers) to build bespoke software. It comprises two layers, one that changes the way delivery is done and the other creating a multi-stakeholder trust network that manages identification, delivery assurance, IPR, security, dispute resolution and stakeholder payments.



Builder uses the following features to increase efficiency and streamline the production of bespoke software:

- Code and design ("Feature") reusability. At the heart of our model is a library of building blocks that could be
 as simple as a Facebook login or as complex as a prediction algorithm. On their own (i.e. without customization)
 these features don't have any significant intellectual property value to the customer and can be licensed out at
 a fraction of the cost of building them again and again. This not only reduces cost but also ensures high-quality
 delivery as building blocks are built for a much wider usability than just one particular client's usage.
- Reduced Atomic Unit. Today when projects are outsourced, they are given as a complete project to be built. This means they need months, if not longer, of dedicated planning time from a development team. As a result of our assembly system and building block structure, we are able to reduce the atomic unit of work down to a feature, that can be given to different engineers in parallel; thereby allowing people to do work for a shorter burst of time, and simultaneously.
- **Capacity Partners.** Capacity partners are key to our delivery process. They are dev shops and agencies from around the world that partner with us to bring their developers, designers, and QA engineers onto our platform. Each one is scored and rated to verify who will actually work on our various client projects.
- Spot vs Reserved Human Capacity. As we have reduced the smallest atomic unit to one that can be done in days and weeks and we are using a capacity network for all the human work, we are able to tap into resources that are between projects. This provides skilled work at a large discount as it is essentially free gross margin for their agencies. People are hired for projects on the basis that they can return to their agency if required by giving us 24 hours notice. When we need longer assignments for more complex work we can reserve developer time at a discount.

BUILDERCARE

BuilderCare forms a part of the platform allowing customers to get updates to their bespoke software as third-party libraries decay over time. It serves as a warranty to ensure the bespoke software will keep working after delivery. This assurance gives customers the peace of mind that no fully delivered project will ever stop working and they won't require additional outsourcing to maintain their idea.

CLOUDOPS

The Engineer.ai platform also leverages AI and machine learning to optimize the management of cloud infrastructure through its CloudOps.ai product. While cloud platforms like Amazon AWS and Microsoft Azure open doors to unparalleled levels of flexibility and scalability, they also come with their own set of challenges related to managing sprawling infrastructure in an efficient and costly manner. Key to the platform is ("UBS") Billing system and upfront cloud wallet service, which provide a much deeper level of transparency and discounted pricing through automated in-depth prediction, reporting and alerting. A more mid-term vision (Quarter 4 2019) for CloudOps is the ability to virtualize the underlying cloud providers both at a PaaS and IaaS layer; thereby allowing customers to move (or virtually move them) without any tie-ins to an underlying provider.

USING THE ENGINEER.AI PLATFORM: DELIVERY VIA BUILDER

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All pricing, specification and management are done via a rich browser experience that is operated by the Human-Assisted AI.

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Through the platform's drag-and-drop user interface (UI) and liberal use of templates and wizards, everyone can easily establish the kind of application they want to build (such as an e-commerce engine), and the Al-infused assembly line will automatically decide which components are necessary to complete the job. The platform will construct the technical foundation for the application. It will also pull together the related resources, including UI assets and wireframes, QA specs, infrastructure definitions, and the humans that will work on the more intricate or bespoke digital parts of the creation process. These people will be selected from the best globally crowd-sourced teams of designers and developers, that work for other dev shops or agencies or independently. The end result is an atomic level project plan that results in us being able to produce bespoke software at twice the speed and less than a third of the cost of our current outsourcing model.



Engineer.ai's AI and machine learning backbone then mitigates any confusion around pricing and delivery targets by learning from past build projects to deliver ever more accurate quotes, including optimizing pricing for new feature requests and subsequent change orders— both regular occurrences that can trip up outsourcing pricing. The engine also makes recommendations on possible feature additions based on previous implementations. The result is an AI-powered application development platform that improves on traditional outsourcing by delivering access to required resources in a timely fashion without any risk of overpaying while increasing reusability of components to further reduce costs.

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By using a set of Smart Contracts and ERC721 tokens in combination with our off-chain technology, we intend to manage all aspects of the software development process in a distributed and automated manner—all the way from product specifications until quality assurance and delivery. In order to illustrate how the various parts of the system will work, we have provided sample workflows below.

PAYMENTS



Smart Contracts will allow us to effectively secure and manage payment workflows for both clients and individual contributors on the platform. By using Smart Contracts to manage escrow payments, we can ensure that clients' funds are protected and they are therefore ensured successful delivery of the project. All payouts will be managed by a Smart Contract thereby ensuring that they have no collection risk, as well as ensuring their performance. The NAYA platform automatically builds in its usage fees into the price of the project, which goes towards maintenance, operation and future development of the platform itself. The payment flow for these fees follows the same process as it does for delivery stakeholders.

CLIENT WORKFLOW

Each project has an associated Smart Contract (this Smart Contract also contains a salted key mechanism for more secure inter-app communication) which acts as an escrow. At the beginning of the project and every week, the client sends their weekly payment of NAYA tokens to the Smart Contract and signs off on the project milestones which are defined in their client dashboard. In order to prevent any surprises at the end of the project, or during the project development phase itself, the client is provided an updated version of the build along which an automatically generated status report upon which they have to sign off.

The client can cancel development at any time, and upon doing so, the funds for the past weeks are released from the Smart Contract as payment, and any surplus post the notice period (1 week) is refunded to the client. During the course of the project, as milestones are met and the client verifies the completion, further funds from the Smart Contract are released.

Once the project is completed, a set of quality assurance managers (QAs) sourced from the contributor network verify the successful delivery of the project. After this, the project is handed over to the client for verification. If the client identifies any issues post-delivery, the QA stakes are forfeited and given to the client as remuneration. The issues are then assigned to developers on the network to fix, and the cycle then repeats. Once the client has successfully verified delivery, the remaining funds from the Smart Contract are released.



CONTRIBUTOR WORKFLOW

When work is requested from either a project, or another part of the workflow, the Resource Allocation and Tracker system searches for the best contributors for the task based on their relevant skill-set, and score while optimizing for price. Once identified, a Smart Contract for the task is generated with a spec file attached via IPFS (decryptable only by the client's private key). This will also contain details on payouts and stake required. In order to accept the task, the contributor must stake the required amount of tokens, with the platform itself, by depositing it into the Smart Contract. After the task ends, the work submitted off-chain is run through automated tests if applicable, and it is then submitted for manual verification via the contributor network. If issues are found at either level, the task is rejected and it is sent back to the original contributor to remedy. The contributor has three such attempts to fix and resubmit, and if they are unable to complete it, then their stake is lost and the task is resubmitted to the network. Once the network verifies the completion of the work, the tokens are paid out to the contributor's registered wallet.



SAMPLE PROJECT WORKFLOW

The flowchart illustrates how the client and contributor workflows come together in a project in order to ensure successful delivery. At the beginning of the project, the designer tasks are allocated via the network, and designers stake the requisite number of tokens in order to begin as described in the Contributor Workflow. The manual verification of delivery for the designers is performed in part by the project manager assigned to project, as well as from the client. The Developers also act as an approver to ensure they have received all the assets thus ensuring we avoid a to and fro later in the cycle. The client is able to request up to three revisions (this is not a hard rule) to designers, and the project manager acts as an arbiter in order to mediate any disputes at this stage. Once the project is ready for development, the regular sprint cycle system begins. Every sprint, developer work is allocated via the network and QAs work to verify the development performed in the previous sprint as described in the Contributor Workflow. After a milestone is reached, and the client verifies its delivery, a partial payout is released to the platform. Once the project is complete, the project delivery is verified as described in the Client Workflow, part of the payment to QA is released and the project enters a 90-day bug fixing period. During this window if any bugs are found, then the QA-held amount will be gradually forfeited to the platform to fix these bugs, as the client does not bear any additional cost of having them fixed. At the end of the period, the final payout is made to the QAs. During this entire process, if at any point a contributor is unable to deliver, their stake is forfeited.



CONTRIBUTOR MANAGEMENT

In order to manage the contributor network, we intend to use an ERC721 token called a "Delivery Stakeholder Identification Token" to manage the identity of the contributors on the network. Each DSIT token contains a "face hash" which is generated using the contributor's face from a live webcam image during the onboarding process, as well as a running score which is updated as the contributor completes tasks on the platform. Each task is individually scored based on automated tests, as well as manual verification of work done by other contributors on the network, and the DSIT score is an aggregate of all task scores.



These workflows and the processes described therein are all made possible by the platform economy and the NAYA token that facilitates every transaction on the network.

TOKEN ECONOMY FOR BESPOKE SOFTWARE DEVELOPMENT

The NAYA token will be used as the core payment system for all products and services within E.ai and is absolutely crucial for the escrow and staking mechanisms that guarantee project delivery and payout. The Builder platform allows customers to indirectly purchase work from a blind marketplace of contributors, while still being guaranteed successful delivery of their project. Simultaneously, contributors have no collection risk for their remuneration.

Moreover, in order to promote decentralization, the token facilitates the foundation partner model which allows significant token holders to perform oracle-related tasks on the blockchain, while leveraging our off-chain technology such as the automated QA bots, scoring systems, usage of building block library, the capacity network, and AI-based assembly system.

It will also incentivize contributors to go above and beyond their compensation from their employers by removing the "dead periods" between projects for agency developers.

CIRCULATION WITH CAPACITY PARTNERS

The main use of the tokens from a payout perspective will go to the individual contributors/dev shops working on areas such as development, project management, quality assurance. Another major use of tokens will be for bounty and royalty payments for building block development done by delivery stakeholders.

We will utilize the capacity network on the platform to also help develop new parts of the platform itself in the following use cases:

- Capacity Partners provide services to E.ai (creating building blocks or integrations) but many also share a dual role including GTM to their own customers (they are a reseller of the E.ai platforms). Thus they are both a buyer and a seller of services to E.ai.
- Bounty and Royalty Management to Capacity partners to create building blocks that are required in the platform, for example, a Facebook login.

The Bounty is paid in Tokens and is effectively the minimum royalty payment, as the building block is used by customers, the royalty can be paid to the capacity partner.

In the interim between being paid, the initial bounty and final payment, the Tokens that are locked can be used for staking within the platform.

- Capacity Partners will be offered the option to be paid in NAYA Tokens or Fiat (or a split) with a
 minimum paid in Tokens. The reason for allowing fiat is that dev shops and developers still have to
 manage their own expenses in fiat, and so the platform must be able to facilitate this as well. However,
 as described below, the platform will incentive the usage of tokens over fiat. Engineer.ai will not be
 doing the conversion itself but will integrate with an exchange and ensure it makes no commission on
 the conversion.
 - Any amount paid in Tokens will be given an X percentage premium (this will be adjusted over time to incentivize the use of Tokens).
 - Any non-token amount will be hedged immediately into a choice of fiat or crypto.
 - All staking & "Reward Tokens" as a result of assessments completed successfully will be in Tokens.
- Capacity Partners will be able to use any NAYA Tokens to buy Customer Software / Upgrade Insurance (one or more building blocks) or CloudOps Services from E.ai using the Tokens.
 - Any amounts paid by Tokens will get an automatic Y percentage discount to incentivize people to be paid in tokens.
 - The minimum Y percentage will be enough to cover the spread risk to the capacity partner of converting fiat to NAYA Tokens.

DISTRIBUTED TRUST PLATFORM

The NAYA Trust Platform reduces risk through a multi-stakeholder delivery model where performance is aligned and secured by utilizing a delegated proof of stake model. The NAYA Trust Platform runs on the following core tenets:

- Everyone must be staked in on time, quality and specification. Every delivery stakeholder (design, development, and QA) "buy in", or stake the work that is being offered. This ensures that they only take up assignments they are confident of doing and also ties them to delivery to the next stage of the assembly line.
- Every part of the delivery process needs multi-stakeholder approval. Plugging into the Builder Assembly line, each person's stake is released by a multi-stakeholder group that is usually responsible for the next step in the assembly line. As described in the project workflow section, the designer's payment is released by a combination of the developers who verify assets, a product manager who verifies all screens done, and the customer who signs off on designs and/ or prototypes. The developer payment is released by a combination of Quality Control and Product Managers. Quality Control managers payments are released by customer acceptance and a 90-day bug-free period.
- Everyone is comfortable getting paid. A large portion of the NAYA Trust Platform is ensuring everyone in a multi-stakeholder platform is paid; this also serves as a stake for the customer. Every week the customer pays into their wallet that is governed by a Smart Contract which automatically releases payment to us. Similarly, as we give weekly assignments to the delivery stakeholders, they will have their payments released automatically in a pre-agreed ration depending on the approvals received.

All delivery stakeholders should have a verified historyThrough facial recognition, a combination of automated and manual scoring, as well as customer and product manager feedback, we are able to track the running score of the delivery stakeholders, that represents their overall ability to deliver quality as well as manage committed timelines. This data is stored on the blockchain via their individual DSIT token and can be updated via the foundation partner network.

DELEGATED PROOF OF STAKE

The NAYA system is modeled after a delegated proof of stake system that uses a combination of staking and scoring in order to ensure that quality is being delivered at scale.

Every unit of work or task that is performed on the network by a delivery stakeholder, is verified by one or more delivery stakeholders also on the network. In order to accept a work or verification task, delivery stakeholders must stake a predefined number of NAYA tokens. This stake is either forfeited if it is found that the delivery stakeholder was unable to perform the task within the specified guidelines, or rewarded along with the payout for the task upon confirmed delivery. This ensures that delivery stakeholders have "skin in the game", and essentially allows them to bet upon their own performance.

The scoring system works in parallel with this process and acts as a reputation based assurance for delivery. A delivery stakeholder's initial score is calculated upon signup to the platform using a set of practical evaluation metrics relevant to their skill set, and is updated every time they perform work on the system using a combination of an automated set of tests against their work (including quality, speed, and performance) and the manual verification described above. Delivery stakeholders essentially have a running score attached to their ERC721 token that represents an aggregate of all work performed. The higher a delivery stakeholder's score, the more work they are allocated in the system, thus incentivizing them to always perform to the best of their abilities. If contributors are found to be acting maliciously or in a negligent manner, their score is immediately penalized effectively barring them from future work. This score also has the effect of acting as a publicly referenceable metric regarding a delivery stakeholder's ability (similar to Github reputation or Stackoverflow karma) which can be useful in a number of off-chain situations (eg. job interviews).

The NAYA token economy effectively removes the need for payment management from the client. It escrows payments in an automated and cost-effective manner that ensures confidence at every stage of the creation process. The blockchain transparent ledger then removes the possibility of dispute and allows developers to accurately display their skill and reputation in a universally understandable way. Initial Target Raise: \$20M Total number of Tokens: 1.25B Issuer: Engineer.ai Naya Limited, Cayman Islands Jurisdictions that tokens will be offered: Cayman Islands Jurisdictions that will be excluded from the offering: US, People's Republic of China Contributions to be made in ETH, BTC AML/KYC checks to be required

The NAYA token is an ERC-20 utility token that will allow customers to purchase custom software, and transact within our ecosystem of related services, such as cloud hosting and third-party SDKs. Conversely, the token would act as a payment mechanism for capacity partners (dev/design/QA shops, service providers, etc.) and contributors on the network with an assured premium.

TOKEN ALLOCATION



The maximum number of NAYA tokens ever created will be 1.25 billion including:

# of token (mil)	Purpose	Lock Period	Vest
75	Seed round	-	-
225	Token sale	-	-
12.5	Bounty campaign	_	-
125	Incentivizing developers	6 months	Quarterly over the next 3 years
187.5	Team reserve	6 months	Quarterly over the next 3 years
62.5	Advisors & Early adopters reserve	6 months	-
187.5*	Working capital reserve	-	-
375	Market development reserve	6 months	Quarterly over the next 7 years

* Not increasing the total number of tokens in circulation

Should there be unsold tokens, during the Token Sale, those tokens will be reserved for the future sales.

Effectively, developers and dev shops, as well as clients, pay a fee to utilize the capacity network, the AI based assembly system, usage of the building block library, automated QA bots, as well as the vendor evaluation system. Some of these features, such as developer evaluation, may be delivered as individual services via the platform, and hence there is a need for multiple authorized entities.

Bounty, rewards, and staking create natural momentum that increases the demand of the Tokens. Developers create building blocks and receive royalty payments in Tokens that also furthers the natural circulation. Finally, the versatile use of the Tokens (from payments to vendors to staking work to pay for cloud services) enables there to be a naturally increasing volume that grows disproportionately to the number of the apps being built. Due to the nature of the escrow system, E.ai has kept aside 15% of the NAYA tokens for working capital in order to manage the imbalance between client payments and delivery stakeholder payouts. The funds deposited by a client for a project are held in escrow until milestones are met, however payouts to delivery stakeholders are often weekly, which could lead to a certain amount of tokens being effectively taken out of circulation as well as currency risk due to market fluctuations. In order to deal with this, at the start of a project, E.ai would withdraw an amount equivalent to the client payment from the working capital allocation to handle the developer payouts and other expenses. When the project completes, the amount received from the escrow payment from the client would be deposited into the working capital allocation, thereby completely balancing the system.

There is also a 30% allocation for market development, which is only available after a 6 months lockup period, and is vested over 7 years. This allocation is intended to be used for growing the ecosystem itself via marketing campaigns, incentivised partnerships, and traditional user acquisition mechanisms.

Use of the Blockchain will create trust in a broken ecosystem, replacing the need to escrow funds and ensuring everyone is focused on delivery. Builder's assembly line for software development connects a vibrant community and platform that deliver the vision of decentralized app development.



USE OF FUNDS

Engineer.ai is an already established platform for building bespoke software. The funds raised from the Token sale will enable further development of the platform and the realization of major client and project milestones.

	Product	Milestone
Q4 2018	Launch Contributor Onboarding Flow	-
Q1 2019	Release Contributor Payment Flow v1	-
Q2 2019	Release Client Payment Workflow v1 Integrate CloudOps into Ecosystem	45,000 Delivery Stakeholders Onboarded 600 Deployed Projects
Q3 2019	Integrate Builder Marketplace into Ecosystem Integrate BuilderCare into Ecosystem	-
Q4 2019	Launch Building Block Licensing System Launch Building Block Royalty System	-
Q1 2020	-	-
Q2 2020	-	250,000 Delivery Stakeholders Onboarded 3500 Deployed Projects

PLANNED FUTURE DEVELOPMENT

External Sales Rewards System

Engineer.ai will allow for the registration of external users to complete the process in the name of the other people. For example, an independent sales agent registers on the Builder side and he manages to present this to some of his clients. This agent would receive a reward in Tokens for the users that successfully signed up.

Project's Code Authenticity and Security

We can use blockchain to prove the authenticity of our projects, it is publicly verifiable that the code deployed to a client's servers has not been hacked by a third-party. We can run a simple instance verifier on the client's code on the resources periodically to show the code on that resource is running unmodified code.

Verifying Asset Ownership

As we create digital products they are easy to transfer or just be copied away. But by providing the data and code to actually register ownership that is transferable, we can protect the client against others copying their ideas or even use it to claim the patent filings for intellectual property.

Betting on Content Delivery

As each development starts, there are deadlines that can be missed. We can give the clients the opportunity to bet against this eventuality and if the deadline is missed then they will earn more tokens as recompense.

SENIOR TEAM PROFILES

@ngineer.ai



Sachin Dev Duggal, Co-founder and CEO Ex-Nivio, Ex-Deutsche Bank

Sachin is a serial entrepreneur building a Human-Assisted AI that empowers everyone to build and operate technology. He has bootstrapped Engineer.ai since 2012, which was created with the belief that people should be able to build their ideas without needing to code. He holds a degree in B.Eng from Imperial College London and a degree in Entrepreneurial Master's Program from MIT. He is an Information Systems Engineer with specialization in Mandarin, Finance, Distributed Systems, Software Engineering, Computational Maths and Operations research with Game Theory.

Sachin took his last company Nivio (one of the pioneers of the Cloud in 2004) to \$100m in value before exiting. Nivio was a pioneer in the Cloud in the mid-2000s that let users stream Windows from the Cloud in a browser and included an app store that let you rent software from Adobe, Corel, and Microsoft.

He also cares deeply about social causes and has given a large amount of equity in his companies to causes he cares about. He recently launched a program called LIFE that pledges up to 50,000 hours of engineering time to help charities further their causes. This has led to persistent work with Her Majesty Queen Rania Al-Abdullah's Jordan Education Initiative, the fight against the death penalty in the US, and helping kids in the Middle East rehabilitate after having lost their limbs using advanced software to build prosthetic arms.



Saurabh P Dhoot, Co-founder and CSO Ex-Nivio, Ex-Videocon D2H



Robert Holdheim, Chief Business Officer Ex-Edelman

Rohan Patel, VP Blockchain and CloudOps Saurabh Dhoot is the co-founder at Engineer.ai and also co-founded Nivio Technologies India Private Limited with Sachin. Saurabh founded Videocon d2h and as Executive Chairman lead the company from the ground up to become one of the largest and fastest growing Pay TV Operators in Asia growing to 15 Million subs and becoming a \$1.5 Bln Venture with 15000 people. Saurabh took the company public on the Nasdaq in 2015. He merged Videocon d2h with Dish TV India to create the world's largest satellite pay tv operator in 2018. He has years of experience in the field of investor relations, mergers and acquisitions, finance and corporate communications. Mr. Dhoot holds a Bachelor's' Degree in Engineering from the Imperial College in the United Kingdom.

Seasoned leader, C-suite advisor, entrepreneur and business builder. Robert has revitalized businesses across three continents by crafting clear visions, building award-winning teams and expanding service offers. Broad experience in integrated marketing, corporate/consumer communications platforms across emerging and developed markets. Robert holds a BA from Cornell University and an MA from the Johns Hopkins School of Advanced International Studies.

Head of Blockchain and Cloud, Rohan looks after all blockchain development and cloud initiatives at Engineer.ai. He was schooled at the University of Waterloo in Canada. Before transitioning to his current position, he ran a global engineering team with over 100 developers globally at Engineer.ai for two years and helped architect much of the core infrastructure. Rohan has practical as well as managerial experience in all major aspects of development, ranging from front-end to back-end and even DevOps, and his time spent on the front lines as a freelancer and in various devshops grants him perspective on the problems Engineer.ai is solving through blockchain and AI technology.



Alex Godelman, VP Engineering Ex-Time Warner



Deepak Tehlan, VP Finance Ex-Videocon Alex Godelman was the Chief Technology Officer of Caste & Crew before joining Engineer.ai as the VP of Engineering. With extensive years of Silicon Valley, Silicon Alley and Silicon Beach experience in Agile product development and software engineering, he is recognized as an evangelist in SaaS, E-Commerce and Online Media communities. He is certified in Lean and Scrum (Certified Scrum Master, Professional and Product Owner) and holds a graduate degree in Computer Science and Applied Mathematics. Alex first broke into the world of Internet technology over a decade and a half ago when he joined, as Executive Director of Technology, Time Warner Music's B3 Corp division - at the time, an industry-leading e-solutions business provider of an end-toend commerce platform. Before coming to Cast & Crew, he served as CTO of Sony New Media Solutions / rGENERATOR, the leading provider of D2C (direct to consumer) eCommerce and data-driven BI and marketing solutions to the major entertainment industry, as well as CTO of Evolve Media, the world's largest online ad network that averages over 90 million unique visitors per month. Prior to that, he was a part of the executive management teams at Shopzilla, the world leader in comparison shopping search, and Electronic Arts' division Maxis, makers of Sims Online.

Deepak has over 20 years experience in corporate finance, M&A, taxation, fund-raising, accounting and budgeting. Deepak is a Chartered Accountant by qualification and has worked in diverse business fields such as consumer electronics and home appliances, power generation, oil and gas, coal, telecom, IT etc. and has been involved in several big-ticket M&A transactions in the last two decades. At Engineer.ai, Deepak's role is to oversee global operations from a financial perspective.

CONCLUSION

E.ai will become the ecosystem for a more effective approach to software development. Businesses of any size will be able to create and own custom software without risking over-budget projects or unexpected failures. Delivery contributors will gain access to clearly defined project briefs and development at the atomic unit and AI and machine learning will optimize production and maintain functionality at a lower cost and without the need for a full-time development team.

This represents a new standard for outsourced software development and creates a lower barrier to entry for the emerging market on non-coders that have software requirements. The trust issues generated by the problems of payment will be eradicated by the NAYA Trust Platform and the escrow system used to distribute payments to multiple stakeholders. Latent developer power will be matched to projects in order to scale bespoke development.

In addition to the growing market of small and medium businesses undergoing technological development, the Engineer.ai ecosystem will give more businesses the opportunity to realize their software projects. Added trust and ease of use from blockchain transparency and AI-powered building tools will be the catalyst for a \$3 trillion software development opportunity.

APPENDICES

APPENDIX 1

Customer profile

Buyer of outsourcing has changed from the Bank CIO to the Dreamer and everyone in between.



Upwork-like platform flow:



Larger Enterprise Software Market Overview

Between 2011 and 2015⁹, overall enterprise software spending grew 10% annually from \$430B to \$620B. Operating Systems and Middleware subsets saw modest gains, while Applications expanded at over 9% per year to \$244B today. Even though cloud cannibalization and stagnant legacy vendors dragged down overall Application growth, SaaS adoption in the period was extremely strong and buoyed the category (see the 2015 Forrester chart below).





^{9 &}quot;Why Custom Apps Grew \$100B In The Last 5 Years - Bowery Capital." 15 Jan. 2015, <u>https://bowerycap.com/blog/insights/custom-apps-grew-100b-last-5-years/</u>. Accessed 6 Jul. 2018.

Custom-Built Software grew at a 33% CAGR from 2011-2015, from \$43B to \$136B in spend. Custom-Built spans more than just the application layer; in the chart above it extends across Application Outsourcing, Consulting (roughly 30%), System Integration/Project work (roughly 50%), Custom Software by Contractors and Mobile apps built by contractors which leads to a potential 2015 value of \$450 billion; assuming a growing audience in with a growing SMB Audience and the 40m odd companies¹⁰ who are going through a digital transformation exercise every year this market size grows to just over 3.4 trillion (assuming just the 33% CAGR it is US\$1.4Trillion).

APPENDIX 5

Based on the Global Entrepreneurship Center: Worldwide, there are about 300 million people trying to start about 150 million businesses. Another 57 million are the owner-managers of 37 million established firms attempting innovation and growth.



^{10 &}quot;Number of Worldwide Business Start-Ups Each Year? - LeRumba." 7 Nov. 2015, https://www.lerumba.com/Directory/shocking-number-of-worldwide-business-start-ups-each-year-article-39.aspx. Accessed 6 Jul. 2018.

	Small Customers / Emerging Market	Medium / Small Developed	Medium & Growing	Total
Customers in Segment	50,000,000	25,000,000	12,000,000	87,000,000
Yearly Customer Revenue	\$7,500	\$50,000	\$150,000	
100% Market Penetration	\$375,000,000,000	\$1,250,000,000,000	\$1,800,000,000,000	\$3,425,000,000,000

- 150m SMB launch every year, assume ~30% of them will build meaningful technology.
- ~40m SMBs doing digital transformation every year.
- Total of ~90m potential SMB Customers with just over 50% being small businesses, 25% being medium and the rest being more advanced or larger SMBs.

Num of Customers	87,000,000	\$5,625	\$7,500	\$9,375	\$30,000	\$40,000	\$50,000	\$75,000	\$100,000	\$125,000
870	0.00100%	\$4,893,750	\$6,525,000	\$8,156,250	\$26,100,000	\$34,800,000	\$43,500,000	\$65,250,000	\$87,000,000	\$108,750,000
1,556	0.00180%	\$8,808,750	\$11,745,000	\$14,681,250	\$46,980,000	\$62,640,000	\$78,300,000	\$117,450,000	\$156,600,000	\$195,750,000
2,819	0.00324%	\$15,855,750	\$21,141,000	\$26,426,250	\$84,564,000	\$112,752,000	\$140,940,000	\$211,410,000	\$281,880,000	\$352,350,000
5,074	0.00583%	\$28,540,350	\$38,053,800	\$47,567,250	\$152,215,200	\$202,953,600	\$253,692,000	\$380,538,000	\$507,384,000	\$634,230,000
9,133	0.01050%	\$51,372,630	\$68,496,840	\$85,621,050	\$273,987,360	\$365,316,480	\$456,645,600	\$684,968,400	\$913,291,200	\$1,141,614,000
16,439	0.01890%	\$92,470,734	\$123,294,312	\$154,117,890	\$493,177,248	\$657,569,664	\$821,962,080	\$1,232,943,120	\$1,643,924,160	\$2,054,905,200
29,591	0.03401%	\$166,447,321	\$221,929,762	\$277,412,202	\$887,719,046	\$1,183,625,395	\$1,479,531,744	\$2,219,297,616	\$2,959,063,488	\$3,698,829,360
53,263	0.06122%	\$299,605,178	\$399,473,571	\$499,341,964	\$1,597,894,284	\$2,130,525,711	\$2,663,157,139	\$3,994,735,709	\$5,326,314,278	\$6,657,892,848
95,874	0.11020%	\$539,289,321	\$719,052,428	\$898,815,534	\$2,876,209,710	\$3,834,946,280	\$4,793,682,851	\$7,190,524,276	\$9,587,365,701	\$11,984,207,126
172,573	0.19836%	\$970,720,777	\$1,294,294,370	\$1,617,867,962	\$5,177,177,479	\$6,902,903,305	\$8,628,629,131	\$12,942,943,697	\$17,257,258,262	\$21,571,572,828
310,631	0.35705%	\$1,747,297,399	\$2,329,729,865	\$2,912,162,332	\$9,318,919,461	\$12,425,225,949	\$15,531,532,436	\$23,297,298,654	\$31,063,064,872	\$38,828,831,090
559,135	0.64268%	\$3,145,135,318	\$4,193,513,758	\$5,241,892,197	\$16,774,055,031	\$22,365,406,708	\$27,956,758,384	\$41,935,137,577	\$55,913,516,769	\$69,891,895,961
1,006,443	1.15683%	\$5,661,243,573	\$7,548,324,764	\$9,435,405,955	\$30,193,299,055	\$40,257,732,074	\$50,322,165,092	\$75,483,247,638	\$100,644,330,184	\$125,805,412,730
1,811,598	2.08230%	\$10,190,238,431	\$13,586,984,575	\$16,983,730,719	\$54,347,938,299	\$72,463,917,733	\$90,579,897,166	\$135,869,845,749	\$181,159,794,331	\$226,449,742,914
3,260,876	3.74813%	\$18,342,429,176	\$24,456,572,235	\$30,570,715,293	\$97,826,288,939	\$130,435,051,919	\$163,043,814,898	\$244,565,722,347	\$326,087,629,796	\$407,609,537,246
5,869,577	6.74664%	\$33,016,372,517	\$44,021,830,023	\$55,027,287,528	\$176,087,320,090	\$234,783,093,453	\$293,478,866,817	\$440,218,300,225	\$586,957,733,634	\$733,697,167,042
10,565,239	12.14395%	\$59,429,470,530	\$79,239,294,041	\$99,049,117,551	\$316,957,176,16;	\$422,609,568,216	\$528,261,960,270	\$792,392,940,405	\$1,056,523,920,54	\$1,320,654,900,675

On the back of a 3.4 trillion potential market size, where some of the audience has never been served before, even a 0.03% market share at an average spend of \$30,000 makes are potential audience segment worth just under US\$1 billion.



The Gig/Freelance economy also validated much of our TAM derivation:

- The total addressable market for the global freelance/gig economy is \$1.5 Trillion with North American accounting for 50% of the world's freelancers¹¹. Growth of the freelance market is roughly 30% YoY.
- Just over 750 billion of tech work is delivered by these freelancers for the typical SMB customer.
- The global distribution of freelancers is as follows: Asia: 11.3%, Europe: 29.3%, North America: 50.7%, Australia: 3.3%, Africa: 1.4%, South America: 4.0.

Current Freelance Markets and their economics:

- Upwork-like—For any kind of job including hourly, project-based, and even full-time or part-time positions. You can even set up your own team or agency. These types have all the bells and whistles. Freelancer.com is a good example of this type of platform.
 - Upwork 20% up to \$500, 10% up to \$10,000, 5% over \$10,000 per client
 - Freelancer 13% (3% to employers, 10% to freelancers)
- Fiverr-like—For small gigs around \$5, where the site gets its name. These are simple, low skilled jobs.
 GigBucks has a similar structure.
 - 20% (\$1 for a \$5 gig)
- TopTal-like—For high-quality freelancers. These platforms have a rigorous screening process for freelancers who want to sign up.
 - Hourly rates 35% to 100% mark up on hourly rates.
- Codeable-like—For niche talent. These freelancers are handpicked by the site's operators to ensure that they have the skills for a particular niche.



^{11 &}quot;Freelancing in America 2017 Survey - Freelancers Union Blog." 17 Oct. 2017, <u>https://blog.freelancersunion.org/2017/10/17/freelancing-in-america-2017/</u>. Accessed 6 Jul. 2018. Addtional references <u>https://www.slideshare.net/upwork/freelancing-in-america-2017/1</u> and <u>https://www.fieldengineer.com/blogs/tale-two-workforces-freelancers-en-marche/</u>

LEGAL DISCLOSURE

GENERAL INFORMATION

This whitepaper describes the initial sale in which the NAYA Token is sold. The NAYA Token is a cryptographic token that is designed to be used for all services in the Naya Trust Platform as outlined in this whitepaper. The NAYA Token is not, nor is it intended to, constitute a security, an investment scheme, financial instrument or any other regulated product in any jurisdiction. This white paper is not, nor is it intended to constitute, a solicitation, prospectus, offer document for investment and does not pertain in any way to an offering of securities, an investment scheme, a financial instrument or any other regulated product in any jurisdiction. Please note that purchases of the NAYA Token are final and non-refundable. Individuals, businesses, and other organizations should carefully weigh the risks, costs, and benefits of acquiring the NAYA Token.

LIMITATION OF THE PURCHASERS

You are not eligible to and you shall not purchase the NAYA Token through the NAYA Token sale if you are a citizen or resident (tax or otherwise) of any country or state where the purchase of the NAYA Token or similar cryptocurrencies or tokens, may be prohibited or the token sale is deemed to be non-compliant with the applicable laws and regulations. For clarity, natural persons and entities that are a resident of (tax or otherwise), domiciled in, or have a connection to, US & People's Republic of China are expressly prohibited from participating in the token sale and purchasing the NAYA Token. Purchases of the NAYA Token should be undertaken only by natural persons, entities, or companies that have significant experience with, and a sophisticated understanding of, the usage and intricacies of cryptographic tokens and blockchain based software systems. Purchasers should have functional understanding of storage and transmission mechanisms associated with other cryptographic tokens. Any entities of E.ai and officers and employees thereof will not be responsible in any way for loss of any cryptographic tokens, the NAYA Token or fiat currency resulting from actions taken by, or omissions of, the purchasers. If you do not have the required experience or expertise, then you should not purchase the NAYA Token or participate in the token offering. You should carefully consider the risks, costs, and any other demerits of acquiring the NAYA Token, and, if necessary, obtain your own independent advice in this regard. If you are not in the position to accept nor to understand the risks associated with this token sale, or any other risks as indicated in this whitepaper, you should not acquire the NAYA Token, until such that you have received the necessary independent advice.

DISCLAIMER

To the maximum extent permitted by the applicable laws, regulations and rules, Engineer.ai, any entities of its ecosystem, and officers and employees thereof shall not be liable for any direct, indirect, special, incidental, consequential or other losses of any kind, in tort (including negligence), contract, statute or otherwise (including but not limited to loss of revenue, income or profits, and loss of use or data), arising out of or in connection with any acceptance of or reliance on this whitepaper or any part thereof by you. E.ai and any entities of E.ai and officers and employees thereof shall not be liable for any loss of the NAYA Token after it is transferred to you by any reason including but not limited to your failure to maintain or backup an accurate record of your password or password cracking by somebody due to your poor maintenance of your password. Any person undertaking to acquire the NAYA Token acknowledges and understands however that E.ai does not provide any warranty as to the release of the Naya Trust Platform or any of the other technical features or services contemplated under this whitepaper. You acknowledge and understand therefore that E.ai (including its associated bodies corporate, officers and employees) assumes no liability or responsibility for any loss or damage that would result from or relate to the incapacity to use the NAYA Token. Regulatory authorities are carefully scrutinizing businesses and operations associated to cryptocurrencies and tokens in the world. In that respect, regulatory measures, investigations or actions may impact future business and may limit or prevent it from developing its operations in the future. Any person undertaking to purchase the NAYA Token must be aware that our business model or the Naya Trust Platform may change or need to be modified because of new regulatory and compliance requirements from any applicable laws in any jurisdictions. In such case, purchasers and any person undertaking to acquire the NAYA Token acknowledge and understand that neither E.ai nor any of its affiliate shall be held liable for any direct or indirect loss or damages caused by such changes. This white paper and any other materials or explanations made by E.ai and its officers and employees shall not and cannot be considered as an invitation to enter into an investment. They do not constitute or relate in any way nor should they be considered as an offer financial instrument an investment scheme or any other regulated product in any jurisdiction. This white paper does not include nor contain any information or indication that might be considered as a recommendation or that might be used as a basis for any investment decision. Neither E.ai nor any of its officers and employees are to be or shall be considered as advisor in any legal, tax or financial matters. Acquiring the NAYA Token shall not grant any right or influence over E.ai organization and governance to the purchasers.

NO REPRESENTATIONS AND WARRANTIES

- E.ai does not make or purport to make, and hereby disclaims, any representation, warranty or undertaking in any form whatsoever to any entity or person, including any representation, warranty or undertaking in relation to the truth, accuracy and completeness of any of the information set out in this white paper.
- Further, no representation or warranty is given by E.ai as to the achievement or reasonableness of any plans, future projections or prospects set out in this white paper and nothing in this document is or should be relied upon as a promise or representation as to the future functionality, utility or availability of the Naya Trust Platform and/or its associated services. To the fullest extent permissible by law, E.ai excludes all liability (and is not liable for) any loss or damage of whatsoever kind (whether foreseeable or not) which may arise from any person acting on any information and opinions contained in this white paper or any information which is made available in connection with any further inquiries, notwithstanding any act or omission, negligence, default or lack of care, by E.ai, its entities, officers and/or employees.

RISK FACTORS

- The purchase of the NAYA Token carries with it risk. Prior to purchasing the NAYA Token, the purchaser should carefully consider the risks listed below and, to the extent necessary, consult a lawyer, accountant, and/or tax professional prior to determining whether to purchase the NAYA Token.
- (a) The NAYA Token will be stored in a wallet, which can only be accessed with a password selected by the purchaser. If a purchaser of the NAYA Token does not maintain an accurate record of their password, this may lead to the loss of their tokens. If your password protection is weak and it is cracked or learned by somebody else, this may also lead to the loss of tokens. As a result, purchasers must safely store their password in one or more backup locations that are well separated from the primary location.
- (b) The purchaser recognizes that some of the services in the Naya Trust Platform ecosystem are currently under development and may undergo significant changes before release and/ or made available for use. The purchaser acknowledges that any of its expectations regarding the form and functionality of the Naya Trust Platform and associated services may not be met for any number of reasons.
- (c) The purchaser understands that while E.ai will make best efforts to release the Naya Trust Platform on time, it is possible that delays to the official release may occur.
- (d) As with other cryptocurrencies and cryptographic tokens, value of the NAYA Token may fluctuate significantly and become reduced in value (including to zero value) for any number of reasons, including but not limited to, supply and demand, overall market conditions, political or geographical reasons, changes of regulations in any jurisdictions, and technical reasons.
- (e) There are risks associated with using or accessing the Naya Trust Platform, including, but not limited to, the failure of hardware, software and Internet connections. E.ai is not responsible for the proper and/or complete transmission of the information contained in any electronic communication or of the electronic communication itself, nor for any disruption, distortion or delay in its delivery or receipt, howsoever caused. You are solely responsible for backing up and maintaining duplicate copies of any information you store on or transfer through the platform.
- (f) The NAYA Token will be issued on the Ethereum blockchain. As such, any malfunction or unexpected functioning of the Ethereum protocol may impact the purchaser's ability to transfer or securely hold the NAYA Token. Such impact could adversely affect the value.
- (g) There may be additional risks that cannot be anticipated or foreseen due to the incipience of crytographic token technology, Blockchain-based technology, Ethereum and related technologies.
- (h) The Naya Tokens are a new issue of cryptographic tokens for which there is no established public market, and an active trading market may not develop. Although the the Naya Tokens may be listed on several cryptocurrency exchanges, there can be no assurance that such exchanges will accept the Naya Tokens for listing or maintain the listing if it is accepted. There also can be no assurance that a secondary market will develop or, if a secondary market does develop, that it will be a liquid market or that it will continue for the life of the Naya Tokens.
 (i) Certain jurisdictions restrict the holding, use, ownership, sale and purchase of cryptocurrencies and/or cryptographic tokens, including outright prohibition or requiring that the sale or
- purchase must take place on a regulated exchange or trading venue. These restrictions may become more prohibitive over time and adversely impact your ability to access a regulated exchange or trading venue in your jurisdiction, or any other jurisdiction that permits the sale or purchase of the Naya Tokens, and you may, therefore, find it difficult or unlawful to sell your Naya Tokens or any alternative cryptocurrency or cryptographic token you hold as a substitute for the Naya Tokens. There are additional risks presented by any potential token exchange service provider, if any, which might be subject to poorly understood regulatory oversight.
- (j) E.ai's executive team will devote such time as they deem reasonably necessary to conduct the business affairs of E.ai in an appropriate manner. However, such personnel may work on other projects and may undertake other technological development and business opportunities outside of E.ai. Accordingly, conflicts may arise in the allocation of resources and energies. The key personnel are not restricted from engaging in any other activities, even those that are directly competitive to E.ai and/or may require substantial time and resources from such persons. As a result, E.ai may not meet its objectives or milestones and the value and utility of the Naya Token may be negatively affected.

- (k) The success of E.ai is expected to be significantly dependent upon the expertise and efforts of the E.ai executive team. The loss of any of these key individuals could have a significant adverse impact on E.ai's operations, ability to develop, deploy, and implement the Naya Trust Platform or meet its objectives and milestones. No assurances can be given that such key individuals will continue to be affiliated with E.ai. Notwithstanding any prior experience that key individuals may have in developing new technologies that are expected to be created by E.ai, any such experience necessarily was obtained under different market conditions and with different technologies at the forefront of development. There can be no assurance that the key individuals will be able to duplicate prior levels of success.
- (I) It is possible that the Naya Trust Platform will not be used by a large number of individuals and other entities and that there will be limited public interest in the Naya Trust Platform or distributed ecosystems more generally. Such a lack of interest could negatively impact the development of the Naya Trust Platform and services and their potential use. Therefore, the success of the Naya Trust Platform and services it provides cannot be predicted.