

**PrefLogic**

**Introducing the STO Wizard  
and SERC Token Framework**



“In dollars raised, the next five years will make the first wave of ICOs look like kids stuff.” Tapscott says the STO will not just be a connection to the blockchain representing some off-chain asset, but instead be a native digital asset that can be traded peer-to-peer without custodians, clearinghouses, brokers, exchanges, and banks. “ICOs have already upended venture capital [and] Wall Street could be next [...] These offspring of ICOs, Security Token Offerings (STOs), will become ubiquitous in venture capital and financial services more generally.”

Alex Tapscott, co-author of *Blockchain Revolution: How the Technology Behind Bitcoin is Changing Money, Business, and the World*

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# Introduction

In a very brief recent period, Initial Coin Offerings (ICOs) have introduced the financial world to a new method of distributing capital using blockchain technology and asset tokenization. This new method has introduced more than 4,000 projects to investors worldwide and has attracted more than \$13 billion in investment.<sup>1</sup> The time has now come to combine the practical benefits of this new technology with the rich traditions of securitized transactions that have served as the infrastructure for the wealth of nations over the past 600 years.

PrefLogic is developing a comprehensive financing solution for entrepreneurs and businesses seeking to combine conventional equity relationships with the efficiencies offered by blockchain technology. Our STO Wizard is now capable of auto-building Security Tokens based on our proprietary SERC Token framework. When our market launch is achieved in the first quarter of 2019, our STO Token Gateway will enable a business of any size to custom-build a Security Token, implement a Security Token Offering (STO), and perform the investor relations services that customarily follow on a securities offering.

Since our launch will be congruent with the timelines of the first mainstream Security Token exchanges, which will be released next year by companies such as Coinbase and tZero, our clients will be able to offer their investors the opportunity for resale marketability that previously could be achieved only with the support of the investment banking community. The start-up, private, or microcap issuer whose market for financing was previously limited to friends, family, and the local bank will now utilize our STO Wizard to create a marketable security that can be offered to a growing worldwide community of blockchain investors.

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<sup>1</sup> [https://www.bizjournals.com/buffalo/prnewswire/press\\_releases/New\\_York/2018/08/06/NY72234](https://www.bizjournals.com/buffalo/prnewswire/press_releases/New_York/2018/08/06/NY72234)

# Security Token Offerings

A Security Token is a digital asset whose value is tied to real-world economic drivers, similar to a traditional debt or equity security. With the introduction of the STO, entrepreneurs with many levels of sophistication and even modest networks of business relationships will be able to engage in new business opportunities through the tokenization of hard assets such as real estate, art, intellectual property, and high-end collectibles, as well as financial assets such as corporate equity, profit participations, debt relationships, etc. Security Tokens can be designed with almost infinite flexibility to represent fractionalized interests in such assets.

The development of the STO, along with the emergence of Security Token exchanges, will provide a broad range of businesses the kind of access to a global pool of investors that today is reserved for a restricted club of large cap equities, investment companies, and hedge funds. At the same time, processing the investment transactions through encrypted communications on the blockchain will give even the smallest issuer a level of enhanced security and transparency that is not available today to even that restricted club.

## Market Opportunity

In 2017, ICOs averaged \$3.8 million investment by an average of 4,800 investors per offering. Note also that, since 2012, 20 million KYC-verified users have registered as Coinbase users, enabling them to buy and sell cryptocurrencies such as Bitcoin.<sup>2</sup>

We view these statistics as indicative of an enthusiastic pool of investors in blockchain-related vehicles. Our optimism about the growth potential of PrefLogic is fueled, in part, by our anticipation that these investors, for whom the glow of cryptocurrencies has begun to dim, will nevertheless retain their enthusiasm for the advantages of blockchain and seek opportunities for investment in blockchain-enabled securities that offer a more stable economic rationale than cryptocurrencies and the comfort of the well-developed legal environment that makes securities secure.

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<sup>2</sup> [https://www.washingtonpost.com/business/economy/move-deliberately-fix-things-how-coinbase-is-building-a-crypto-currency-empire/2018/05/17/623d950c-587c-11e8-858f-12becb4d6067\\_story.html](https://www.washingtonpost.com/business/economy/move-deliberately-fix-things-how-coinbase-is-building-a-crypto-currency-empire/2018/05/17/623d950c-587c-11e8-858f-12becb4d6067_story.html)

# Mainstream Momentum

In February 2018, Circle Internet Financial, a firm funded by Goldman Sachs, acquired digital token exchange Poloniex for \$400 million. Circle stated that its vision is to create a “robust multi-sided distributed marketplace that can host tokens which represent anything of value,” citing examples such as real estate and equity.<sup>3</sup>

In July 2018, crypto giant Coinbase acquired securities dealer Keystone Capital in order to become an SEC-regulated broker dealer, opening up the doors for the compliant trading of securities on the blockchain.<sup>4</sup> As expressed in a blog post written by Coinbase’s president and COO, Asiff Hirji:

*“We can envision a world where we may even work with regulators to tokenize existing types of securities, bringing to this space the benefits of cryptocurrency-based markets—like 24/7 trading, real-time settlement, and chain-of-title.”<sup>5</sup>*

Additionally, in May 2018 the Boston Stock Exchange announced a partnership with Overstock subsidiary tZero, aimed at launching the first regulated Security Token exchange.

As crypto and traditional finance merge to launch Security Token exchanges, this market is poised to take off in the coming months. **Our goal is to be strategically positioned as a premiere gateway for this sector, where our client-issuers could be among the first to build tokens to trade on these new exchanges in 2019.**

# The PrefLogic Solution

PrefLogic plans to serve the traditional and crypto investor markets where they intersect, with the goal of helping merge the distribution capabilities of the crypto market with the regulated investment structures that underpin investor confidence.

<sup>3</sup> <https://www.bloomberg.com/news/articles/2018-02-26/goldman-backed-circle-buys-digital-exchange-poloniex>

<sup>4</sup> <https://www.cnbc.com/2018/06/06/coinbase-acquires-keystone-capital-in-bid-to-become-a-regulated-broker-dealer.html>

<sup>5</sup> <https://blog.coinbase.com/our-path-to-listing-sec-regulated-crypto-securities-a1724e13bb5a>

As we write this whitepaper, the PrefLogic STO Wizard is capable of auto-building Security Tokens based on our proprietary SERC framework. With a library of dozens of customizable smart contracts, the STO Wizard will generate for each client-issuer a SERC token embedded with the issuer's customized smart contract as well as applications that will assist the issuer in complying with the regulations specific to the SEC offering exemption that the issuer elects. The STO Wizard today can provide applications specific for offerings under Reg D, Reg CF, or Reg S; we are at work on an application specific to a Reg A+ offering.

With lean and adaptable contract architecture, PrefLogic's goal is to stay in step with changing technology, regulations, and outside innovation. We believe this will enable us to maintain our status in the industry after the STO Token Gateway has been launched. PrefLogic will demonstrate its technology by hosting a hackathon in Q4 2018 (announcements to follow).

## Business Model

PrefLogic employs a B2B model that provides compliance-based SaaS services such as KYC/AML verification, cap table management, and shareholder notifications.

Our STO Wizard will allow any business in search of capital to generate a Security Token and initiate a Security Token Offering. Through this process, the issuer will gain direct-to-investor access and the potential for global distribution. We will offer the STO Wizard to issuers for a fee, starting at \$10,000 USD.

To complement the STO Wizard, our STO Token Gateway will also provide an array of the services that an issuer requires, such as Know Your Customer (KYC) verification, Anti-Money Laundering (AML) verification, cap table management, and shareholder notification capabilities. PrefLogic plans to grow both incrementally through the addition of issuer clients and exponentially through the addition of product offerings that will create multiple recurring revenue streams.

As client issuers market their STO Wizard-generated tokens to investors, utilizing the ancillary services offered in our STO Token Gateway, those KYC-verified investors will enter our gateway and be added to our database. We plan to leverage that database into revenue opportunities to the extent that government regulation and our ethical obligations to our clients and to their investors permits.



# Revenue Streams

- A. **STO Wizard.** An issuer-client will be able to enter the STO Token Gateway and utilize the STO Wizard for an initial subscription fee of \$10,000.
- B. **Turnkey STO.** An issuer-client looking for a more complete solution for its STO may subscribe to the Turnkey STO for an initial subscription fee of \$20,000. The Turnkey STO provides access to the STO Wizard for generation of the client's Security Token. The Turnkey STO will also provide the subscriber:
  - Website/Videos: Specific to proposed market offering.
  - Offering Circular: Introduction to SEC disclosure requirements and guidance in preparing an initial draft offering circular for subsequent review by counsel.
- C. **KYC/AML Verification.** SEC regulation of private security offerings, as well as certain state blue sky regulations, mandate that the issuer obtain sufficient evidence to conclude that each investor has the sophistication and financial wherewithal to make an intelligent decision regarding the investment. Federal regulations also mandate that certain issuers obtain competent evidence that no investor is using the proceeds of illegal activities to fund his investment. PrefLogic will offer these services for a fee of up to \$20 per investor.
- D. **Cap Table Management and Shareholder Notification Services.** Each issuer will require the capability of immediately accessing information about its capitalization and about its token holders, as well as the ability to promptly and accurately contact its token holders. PrefLogic will offer these services for an annual fee of \$5 per investor.

- E. **Investor Services.** The services we provide to client issuers through the STO Token Gateway will provide us access to a database of investors. With the cooperation of our client-issuers, we intend to market to the investor database investment-related services, such as research reports, trading strategies, and other financial services. Our revenue target for these value-adds will be \$5 per month per investor.
- F. **Affiliated Vendors.** PrefLogic intends to provide its client-issuers access to legal, marketing, and other services they may require to complete their capital formation process. These services will come from trusted partners who specialize in the blockchain and Security Token sector, with PrefLogic creating a marketplace for these vendors. PrefLogic would benefit from a marginal percentage of each service agreement.

## Competitive Analysis

BRAND	STO	ISSUER WIZARD	INVESTOR KYC*	SHAREHOLDER NOTIFICATIONS*	CAP TABLE MANAGEMENT*	INVESTOR DASHBOARD	OFF-CHAIN OFFERINGS	CONCURRENT OFFERINGS
PREFLOGIC	✓	✓	✓	✓	✓	✓	✓	✓
POLYMATH	✓	✓	✓	✗	✗	✓	✗	✗
SECURITIZE	✓	✗	✓	✗	✗	✗	✗	✗
TRUST TOKEN	✓	✗	✓	✗	✗	✗	✗	✗

# Technology

A smart contract is a self-executing program, or digital contract, that facilitates, verifies, and enforces the negotiation or performance of a contract.

Smart contracts allow for credible transactions—such as trades of asset-backed tokens—to take place without third parties in a transparent and secure environment that produces an immutable record of transactions.

Blockchain and smart contracts combine to power a system strong enough to withstand unruly influence and the strength to prevent manipulation by those who might attempt to circumvent the system for financial gain. Empowering securities through programmable definition has endless application. Issuers can design powerful, self-executing processes and rights into the security, clearly defining investor participation in the issuer's business venture.

## SecurityERC Token with Smart Contract Controls

Using a combination of on-chain and off-chain services, the SecurityERC (SERC) Token can be securely stored and traded on the Ethereum blockchain across ERC-compatible platforms and wallets.

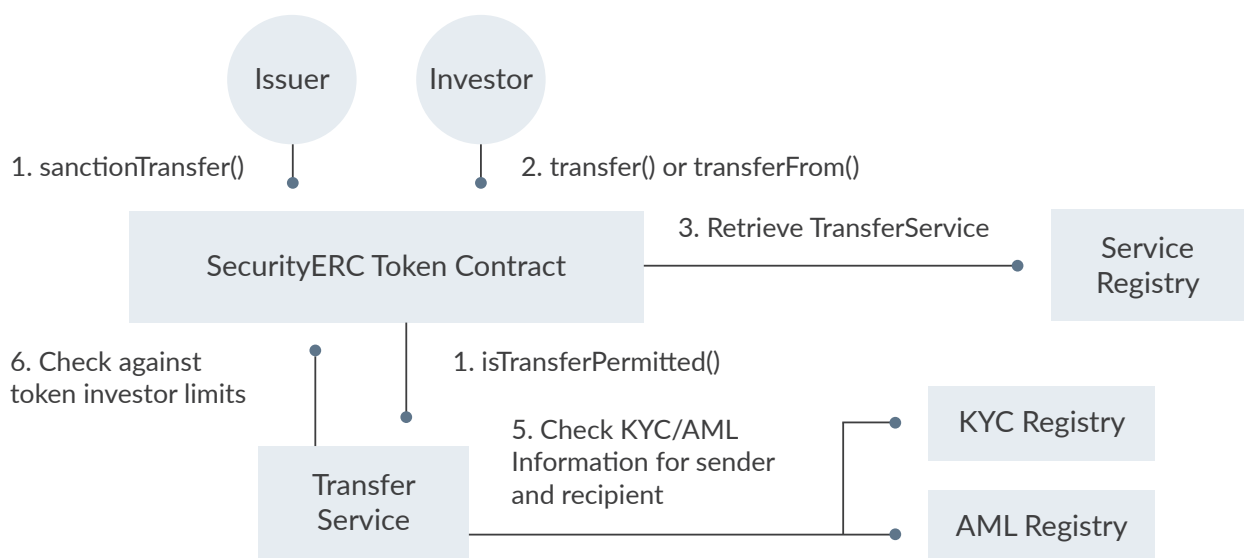
Proxy contracts are used throughout the STO Wizard, allowing every component of the SERC Token to be upgraded independently.

The SERC Token will have built-in controls at the smart-contract level for the following:

- **Fail-Safe:** Issuers will have the option to pause all activity on a SERC token in extreme situations, if needed.
- **KYC / AML:** Only whitelist-validated entities can make transfers.

- **Investor Accreditation:** Where applicable, only whitelist-validated entities that are also accredited can make transfers with issuer approval.
- **Residency:** Where applicable, tokens will require permissions based on citizenship or other relevant jurisdictional restrictions to make transfers.
- **Security:** If an issuer loses its private key, it can work with the STO Wizard to change the contract owner address.
- **Cap Table:**
  - » Issuers can set a limit on the number of token holders, in order to prevent triggering the need for SEC registration when total investors reach 2,000 or non-accredited investors reach 500. As the limit is approached, Smart Contract Controls can prevent new token issuances as well as subdivision of tokens.
  - » Issuers must approve token transfers for tokens minted during a restricted offering. A database of sanctioned transfers may be stored on the token contract.

## Token contract transfer interaction:



*Token contract interacting with transfer service*

## Security Token Details

### Interface

```
contract ISecurityERC20 is ERC20 {  
    function sanctionedTransfer(address _from, address _to) public view returns (uint256 _value);  
    function investor(address _address) public view returns (bool);  
    function accreditedInvestor(address _address) public view returns (bool);  
    function maxInvestors() public view returns (uint256);  
    function maxNonAccreditedInvestors() public view returns (uint256);  
    function investorCount() public view returns (uint256);  
    function accreditedCount() public view returns (uint256);  
    function mint(address _to, uint256 _amount) public returns (bool);  
}
```

## Offering Type

The token can be transferred to an investor's wallet in two ways: on-chain or off-chain. On-chain offering contracts allow investors to purchase tokens directly from the offering contract in exchange for ETH. Restrictions for this type of offering depend on the exemption used.

When an issuer conducts an offering entirely off-chain, i.e., through a non-blockchain portal, airdrop offering will be used. The results of the offering will be entered into a spreadsheet and uploaded to the STO Wizard, to then be fed into an airdrop offering contract.

## Transfer Controls

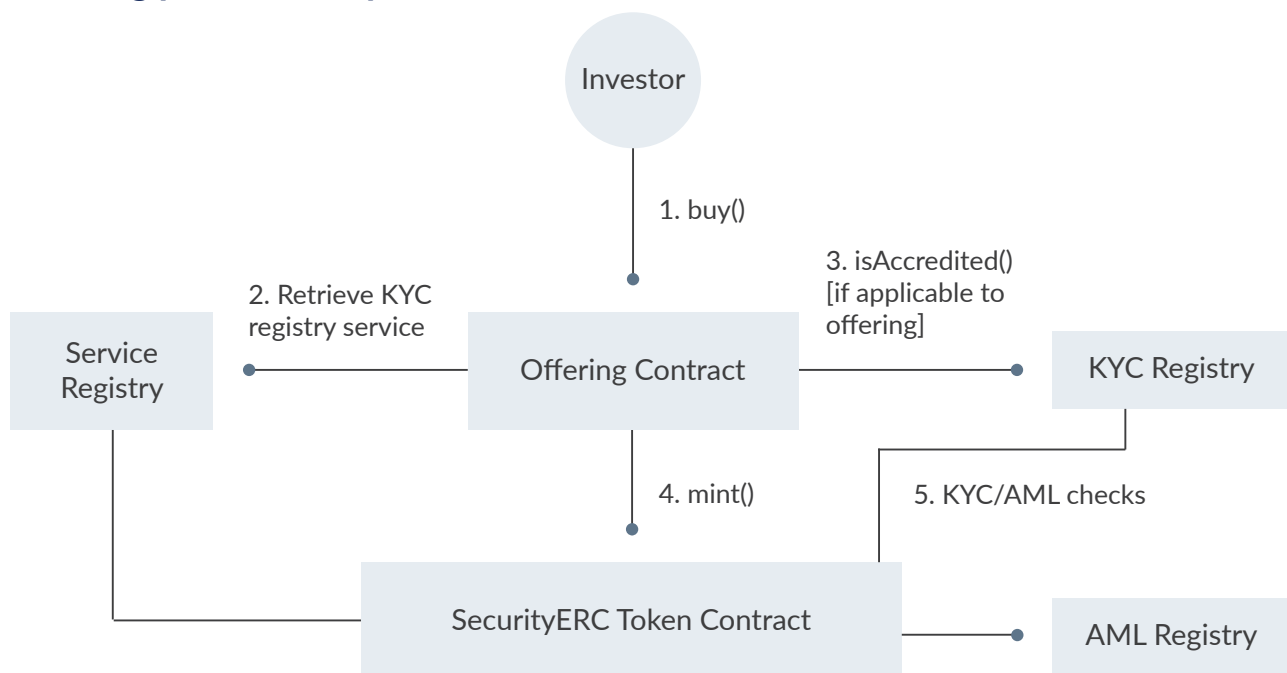
The transferability of each SERC Token will be initially determined by the type of offering in which the token is initially distributed and by the wallet type holding the investor's token.

The type of wallet in which an investor is able to hold a token will depend on how the investor received that token. For example, if the offering requires a trading restriction, then the token has to live within a restricted wallet. The only way a token from a restricted wallet can be transferred to a different wallet type is with issuer sanction. Sanctions can be made within the token contract itself under certain circumstances. The STO Wizard provides a dApp that facilitates this process and includes details about the target wallet address.

Transfer service built into the STO Token Gateway ensures that senders and recipients receive appropriate KYC/AML verification. Transfer service also monitors the total number of token holders and the number of non-accredited token holders, and enforces any limits placed by the issuer. Most importantly, the transfer service assures that restricted tokens are not transferred without sanction by the issuer.

The issuer can build into the smart contract legal and/or service fees related to processing transfers.

### Offering purchase sequence:



*How an offering contract interacts with the token contract*

# Registration Exemptions

The SERC Security Token will be available for offering under the following US Securities and Exchange Commission (SEC) registration exemptions:

## ***Regulation D (506b, 506c)***

- Investors can purchase on-chain token offerings from the offering contract with a restricted wallet. Airdrop delivery will be used for off-chain offerings.
- Tokens cannot be traded freely.
- After the compliance holding period, investors can request that the issuer sanction a token transfer.
- Once transfer rights are granted, transactions with unrestricted wallets are written on the blockchain.

## ***Regulation CF***

- Investors can purchase on-chain token offerings from the offering contract with a restricted wallet. Airdrop delivery will be used for off-chain offerings.
- After the one-year compliance holding period, investors can request sanction by the issuer of token transfer to an unrestricted wallet.
- Once transfer rights are granted, transactions with unrestricted wallets are written on the blockchain.

## ***Regulation S***

- Non-US investors can purchase on-chain offerings directly from the offering contract with a restricted wallet. Airdrop delivery will be used for off-chain offerings.
- Tokens in international wallets can be freely traded to other international wallets not owned by US citizens without sanction by the issuer, or with sanction of compliance with local laws.
- Tokens in international wallets cannot be freely transferred to unrestricted or restricted wallets.
- After the compliance holding period, investors can request that the issuer sanction token transfer to unrestricted wallets.
- Once approved, transactions from an international wallet to an unrestricted wallet are written on the blockchain.

## ***Regulation A+***

- Compliance with prospectus delivery requirements will be built into the STO Wizard.
- Investors can purchase on-chain offerings from the offering contract with an unrestricted wallet. Airdrop delivery will be used for off-chain offerings.
- Investors can immediately trade tokens freely without sanction by the issuer.
- Transfers can only be made to unrestricted wallets.



# Registries

## KYC/AML

KYC/AML status, investor accreditation status, and wallet type will be checked using whitelists and blacklists populated by a partner building universal lists for the Security Token ecosystem.

## Service

A service registry makes it possible to update contracts with common rules, allowing multiple tokens to be updated simultaneously without the need to directly update issuer token contracts. It will also keep track of maintainers (e.g., PrefLogic addresses) with administrative authority.

# Tools

## Issuer Tools:

- **Shareholder Notices:** The STO Token Gateway will allow issuers to send shareholder notices, either the issuer's own or those provided by an external party. PrefLogic will provide the front-end application that talks to the underlying service. Issuers can choose how to deliver the notification, such as through e-mail or postal delivery. Rates will be determined on a per-investor basis.
- **Transfer Agent:** Issuers (excluding SEC-registered issuers) can serve as transfer agent for restricted tokens. Issuers can access information on potential transfer parties before authorizing transfer. The STO Token Gateway will then send a notification to the parties as to whether the transfer can be processed.
- **Automatic Approval:** Issuers have the option to turn on "automatic" transfer approvals for requests that meet a certain criteria. This tool will allow the issuer to add a rule to auto approve all such requests.

- **Cap Table Management:** Issuers can manage their capitalization tables and generate reports.
- **PPM Wizard:** A private placement memorandum (PPM) is a legal document that prospective investors receive prior to purchasing a security. It includes a description of the company selling the security, the offering terms, and risks of investment, among other things. The STO Wizard will offer a step-by-step wizard for the issuer to get a PPM started, to be completed with proper assistance by the issuer's legal advisor.

## Investor Tools:

- **Transfer Requests:** Investors can request a transfer of a restricted token balance to another restricted wallet or to an unrestricted wallet. The interface will allow investors to ensure the target wallet is known, passes KYC/AML checks, and is the correct wallet type.
- **Mobile Application:** Investors can review their token balances and wallets with mobile-friendly applications that will offer push notifications for investment, as well as issue-investor communication.



# Road Map



# The Team



**CHRIS CORICA**  
*Chief Executive Officer*

A successful New York banker who is also a proponent of decentralized banking, Chris Corica currently is the Community-to-Management liaison for a Top 50 market cap crypto. In the city of Buffalo, Chris focuses on development as CEO and Founder of Queen City Funding, Inc. He is also a real-estate consultant for a reputable US hedge fund.



**MIKE BRENNAN**  
*Chief Operating Officer*

Mike is a versatile software developer and entrepreneur that has worked for one of the largest high-tech retail companies in the world as a senior software engineer. Mike holds an MBA and has 15+ years of experience in the tech space. He enjoys understanding complex systems and solving hard technical problems. He is passionate about building large-scale data systems and cares about high-quality work, as well as reliably and efficiently getting things done.



**TODD WIER**  
*President*

Todd is a business development professional with experience in technology and finance. His recent duties included management of a privately owned asset fund. Previously, Todd founded and served as CEO of TEK21, who developed web-based applications for several major brands including MGM, Capitol Records, and Budweiser.

**BOB STOCKDALE**  
*Chief Technology Officer*

Bob has eleven years of experience designing, developing, and implementing software systems ranging from critical business systems and massive data migration projects to widely available e-commerce websites. Since 2016 he led the development and rollout of a new website platform for a massive subsidiary of the largest online retailer in the world. Bob is a polyglot engineer with expertise in Elixir, Java, JavaScript, Solidity, and Perl, with a passion for security and driving innovation.

**LANCE WOODSON**  
*Chief Information Officer*

Lance began mining Bitcoin in 2012, and now he uses his network automation experience to maintain an Ethereum mining data center. He previously advised an IoT research facility for Lockheed Martin, built data centers with Cisco Systems, and taught service provider routing with Juniper Networks.

**KYLE ANDERSON**  
*Full Stack Developer*

Kyle has worked on a wide range of projects in his eight years of development experience. His passion for solving any given problem has led him from pouring through vendor COBOL code to developing blazing fast asynchronous APIs to launch new business ventures. His recent work has focused on provisioning scalable cloud infrastructure, and his current role as a senior software engineer allows him to frequently touch all layers of the stack to ensure the applications in his purview are running at their best and meeting the needs of his clients.

**JEFF TILL***Back-End Developer*

Jeff is a dedicated backend developer with a focus on ETL and big data processes. He has 15 years of experience building enterprise data systems, and he currently works as a data architect at a large company whose goal is to write “software that works to help government work better.” Jeff is a talented, passionate programmer who enjoys competing in programming challenges. He has worked on personal projects in the fields of business intelligence and artificial intelligence.

**GREG YANNUZZI***Front-End Developer*

Greg has 20 years of experience in software engineering with a focus on web development. He enjoys new challenges and has taken on projects ranging in size from enterprise, military, and government systems, to interactive marketing kiosks, and commercial web systems for storage rentals and management. He prioritizes providing flawless and intuitive user experiences across all mediums.