Anthony Johnson

Solutions Architect

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SUMMARY

Anthony Johnson is a seasoned engineer and consultant at Clevor Consulting Group, bringing over nine years of experience in software development, system design, and project leadership. With deep expertise in transit technology and payment integration, he has played a pivotal role in advancing next-generation fare collection systems for major transit agencies, including in San Francisco (Clipper 2.0), Boston (Charlie 2.0), Chicago (Ventra 3.0), Baltimore (CharmCard 2.0), Philadelphia (Key 2.0), and Toronto (PRESTO 2.0). Previously, as a lead engineer at Cubic Transportation Systems, Anthony spearheaded the launch of the Clipper® card in Apple Wallet® and Google Wallet®, helping modernize the fare payment experience for thousands of riders. Anthony remains committed to helping transit agencies implement seamless, efficient, and innovative fare collection solutions that enhance the rider experience and drive the future of public transit.

PROJECT EXPERIENCE

2022 – Present

Key 2.0, Southeastern Pennsylvania Transportation Authority (SEPTA), Philadelphia, PA

SEPTA engaged CCG to provide industry expertise and strategic direction for the replacement of its Key 1.0 fare collection system. As a key contributor, Mr. Johnson played a lead role in defining system technical specifications and developing comprehensive requirements for the software, hardware, and operational components of Key 2.0. He facilitated collaborative workshops with stakeholders to identify agency needs and ensure alignment with SEPTA's vision. Additionally, he was instrumental in evaluating vendor proposals and guiding the selection process. Currently, Mr. Johnson manages the technical delivery of Key 2.0 to ensure the successful design and implementation of the program.

2021 – Present

Automated Fare Collection (AFC) 2.0 Implementation, Massachusetts Bay Transportation Authority (MBTA), Boston, MA

The MBTA has successfully deployed its modernized, account-based fare collection system, AFC 2.0, transforming payment options for Boston's transit riders. CCG has been a key partner throughout the project, from system design through implementation, and led the comprehensive testing effort to ensure all major components were production-ready. As CCG's project management and technical lead, Mr. Johnson led cross-functional technical teams through design reviews, system validation, and defect management to facilitate a seamless deployment. He also played a pivotal role in the design and validation of critical AFC 2.0 components, including the mobile solution, inspection solution, and validation devices. Mr. Johnson is now focused on driving the next phase of the program which introduces a new account-based Charlie Card to the AFC 2.0 system. His responsibilities included coordinating with agency and vendor stakeholders, identifying and resolving technical challenges, and ensuring the system met operational performance metrics and customer experience goals.

2021 – Present

Ventra 3.0, Chicago Transit Authority (CTA), Chicago, IL

The CTA is upgrading its account-based Ventra system to a cloud-hosted platform while transitioning to a true open architecture design. This modernization enhances system flexibility, operation effectiveness, and third-party integration capabilities. Leveraging his expertise in system integration,

Mr. Johnson played a key role in refining the vendor's integration guides and API documentation to improve clarity, usability, and alignment with industry best practices. Currently, he leads the validation effort to ensure Cubic's open architecture environment meets technical and operational requirements by rigorously testing system interfaces for third-party readiness. His role involves coordinating with cross-functional teams, identifying potential integration challenges, and driving solutions that support a seamless transition to an open, cloud-based system.

2021 – Present

PRESTO, Metrolinx, Toronto, CA

Metrolinx launched an initiative to replace its existing PRESTO system, one of the largest and most complex fare collection systems in North America, serving the Greater Toronto and Hamilton Area. To support this effort, Metrolinx engaged CCG to provide industry expertise on emerging technologies and to develop the technical specifications for the next-generation PRESTO system. As a key technical leader, Mr. Johnson designed and implemented a structured requirements capture process, leveraging purpose-built tools to collect and synthesize feedback from over 50 stakeholders across Metrolinx and 10 partner transit agencies. This process ensured that diverse operational needs and future scalability requirements were thoroughly considered. Additionally, he architected the back-office and open architecture requirements, defining a robust framework that enables seamless integration, scalability, and innovation. My work has been instrumental in positioning Metrolinx to adopt a cutting-edge, account-based fare collection solution that aligns with industry best practices and future transit needs.

2019 – 2021

Clipper® Mobile Fare Payment System, Cubic Transportation Systems, Concord, CA

This San Francisco Bay Area mobile solution includes an iOS app, Android app, new back office, and integrations into the NFC mobile wallets: Apple Wallet and Google Pay. The integrated fare payment system was launched under the Next Generation Clipper® (C2) contract in April 2021 in a little over two years, and serves nine counties, 24 transit agencies, a retail network (market share dominated by Walgreens and Whole Foods), and over 15,000 legacy fare rules. This truth-on-card, closed-loop system was the first major deployment of the C2 contract, intended to bring accelerated value to the customers and end-users of the 9-county bay area and serves as a staging point for the future truth-on-server, open-loop system. Within 2 weeks, the payment system was averaging over $25,000/day in revenue on the iOS virtual card network alone.

As the Lead Systems and Project Engineer for the C2 mobile project, Mr. Johnson coordinated the technical delivery of the system, directing a team of 35 engineers distributed throughout San Francisco, San Diego, Germany, Australia, and India during the design and build phase of the iOS and Android mobile applications and the Azure cloud back office. He also facilitated technical meetings with external partners to ensure integrations into the Apple Wallet and Google Pay satisfied design requirements and deployments were delivered on time.

2016 – 2018

Singapore Thomson East Coast Line Automatic Fare Collection, Cubic Transportation Systems, San Diego, CA

The Singaporean Land Transport Authority (LTA) announced this line in August 2014 and is among the world's longest driverless rapid transit lines. The medium-capacity Mass Rapid Transit (MRT) line plans to be opened in 5 stages, with stage 1 having opened in January 2020. When fully operational, the MRT line is expected to serve 500,000 – 1,000,000 commuters daily.

Mr. Johnson was the lead software engineer for the automatic gate subsystem provided by Cubic. He designed, developed, documented, and delivered the gate driver software to be integrated seamlessly into the LTA's existing back-office control system. The project required close customer collaboration to ensure the 2-party system worked as intended to provide safe and efficient gate

access to Singaporean transit riders. Mr. Johnson was recognized by senior leaders with the STAR Award for the timely delivery of the project's critical milestone.

PROFESSIONAL ACCOMPLISHMENTS

2020	**Values In Practice (VIP) award for demonstrating excellence in customer satisfaction at Cubic**
2019	**Cubic High Potential Program: selected among the top 2% of employees for exhibiting strong functional ability and exceeding job expectations**
2018	**STAR Award for exceptional performance relating to the on-time delivery of the Singapore TEL gate prototypes at Cubic**

WORK HISTORY

2021 – Present	**Director of Engineering, Clevor Consulting Group** Mr. Johnson focuses on providing the technical expertise and services necessary to deliver high-quality and innovative payment systems in public transit. He has been a key technical resource in many of CCG's biggest and most complex projects and solutions.
2019 – 2021	**Systems & Project Engineer, Cubic Transportation Systems** Mr. Johnson's primary task was to deliver the Next Generation Clipper® (C2) program, which included the C2 mobile solution and the C2 retail solution which is planned to replace the legacy dial-up units at retails stores throughout the SF Bay Area. His technical skills and his ability to communicate efficiently and effectively earned the trust of Cubic's direct customer, the Metropolitan Transportation Commission.
2015 – 2019	**Software Engineer, Cubic Transportation Systems** Mr. Johnson began his professional career as a Software Engineer at Cubic and was promptly assigned to projects to work directly with Cubic's customers to manage design requirements, project scopes, and system verification criteria. The software projects he was responsible for primarily involved device software engineering which included low-level device drivers and higher-level device GUI applications.

EDUCATION

2016	**Bachelor of Science, Computer Engineering, University of California San Diego, San Diego, CA** Mr. Johnson earned a B.S. in Computer Engineering at the UCSD Jacobs School of Engineering