

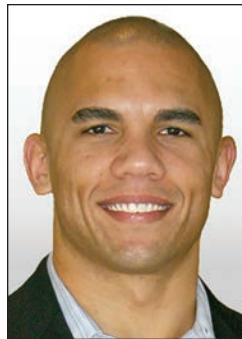
Automating Engagement

An Interview with Randall Crowder, Chief Operating Officer, Phunware, Inc.

EDITORS' NOTE Randall Crowder is passionate about new venture creation and the innovative spirit that fuels entrepreneurs and advances in technology. As an active investor and entrepreneur, he understands what it takes to successfully launch and grow a new business. He regularly publishes articles and speaks on entrepreneurship, venture capital, healthcare, and the rise of blockchain technology and cryptocurrencies.

Over the past decade, Crowder has led over 40 angel investments and deployed over \$60 million across 14 companies as a venture capitalist. He is a co-founder and Managing Partner at TEXO Ventures where he focused on tech-enabled health services and he is the sole founder and Managing Partner at Novē Ventures where he focuses on investing in existing companies looking to leverage blockchain technology. Prior to TEXO, he led the Central Texas Angel Network (CTAN) to becoming one of the most active angel networks in the country. Crowder also founded and launched Texas Venture Labs (TVL) at UT in order to give the next generation of investors unique experiential learning opportunities outside of the classroom. Before getting involved in venture and entrepreneurship, Crowder was a Captain in the United States Army and is both Airborne and Ranger qualified. He served over six years active duty and deployed twice in support of Operation Iraqi Freedom where he was awarded two Bronze Stars for his actions during combat operations. Crowder holds a BS from the United States Military Academy at West Point and an MBA from the McCombs School of Business. He is also a Kauffman Fellow and member of the Young Entrepreneur Council.

COMPANY BRIEF Phunware, Inc. (phunware.com) is the pioneer of Multiscreen-as-a-Service (MaaS), an award-winning, fully integrated enterprise cloud platform for mobile that provides companies the products, solutions, data and services necessary to engage, manage and monetize their mobile application portfolios and audiences globally at scale. Phunware's Software Development Kits (SDKs) include location-based services, mobile engagement, content management, messaging, advertising, loyalty (PhunCoin & PhunToken) and analytics, as well as a mobile application



Randall Crowder

framework of pre-integrated iOS and Android software modules for building in-house or channel-based mobile application and vertical solutions. Phunware helps the world's most respected brands create category-defining mobile experiences, with approximately one billion active devices touching its platform each month when operating at scale.

Will you highlight the history and heritage of Phunware and how the company has evolved?

Phunware was founded in 2009 by Alan Knitowski, Luan Dang, and Alan Kane. Ironically, I was actually one of the first people to hear the Phunware pitch as I helped Alan raise his first \$1.5 million seed round. Back then, the mission was simple – help large brands transition from web to mobile. However, there was nothing simple about the value proposition.

In 2009, less than 3 percent of internet content was consumed on mobile and many brands were just figuring out what to make of the web. Fast forward to today and that number is over 60 percent with the majority being delivered through native apps. Phunware has built mobile apps for everyone from the NFL, NASCAR, and Fox to the Olympics, hospitals and even a U.S. president. Phunware raised over \$100 million as a private company from marquee investors like Cisco, Samsung, and WWE before going public on Nasdaq in December 2018 under the ticker symbol PHUN.

How do you define Phunware's mission and purpose?

Our dedicated team of pioneers deploy cutting-edge technology to help any brand in any industry better engage, manage and monetize their stakeholders in a mobile-first world. We tech-enable contextual engagement by leveraging data and unifying disparate third-party solutions to deliver the right content in the right place to the right person at the right time. By automating engagement, we help our customers not only make more money, save more money, or get more out of their money, but also delight their stakeholders by enhancing real world experiences.

Will you provide an overview of Phunware's solutions and how you describe the Phunware advantage?

Although Phunware began as a custom mobile development company, we now offer a robust enterprise platform so companies can standardize critical operations on our mobile cloud infrastructure and realize the true promise of digital transformation. In addition to having more than a decade of experience in mobile, we are most proud of five distinct competitive advantages that represent specific solutions designed to reimagine engagement:

1. Modular Application Framework. Our customers can deploy complex mobile ecosystems by licensing proven software rather than writing custom code. This gives them the unique ability to rapidly deploy mobile applications that can be easily updated to address feature enhancements as well as the evolving

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demands of platforms like Apple iOS and Google Android. We have also pre-integrated all of our features and capabilities by industry to provide out-of-the-box solutions that take the guesswork out of deployments.

2. Location Based Services (LBS). You can't engage what you can't locate and we have the best location software in the world. When you are outside, you can use GPS and satellites to locate a mobile device, but we bring this capability indoors. We can deliver proximity, sub one-second real-time blue dot indoor positioning, navigation and wayfinding functionality that is ADA-compliant across any facility or campus, while seamlessly switching between indoor and outdoor environments. These capabilities are so powerful they can even help venues handle real-time emergency response scenarios by contacting and dynamically routing people to safety, while simultaneously guiding first responders to an identified threat or emergency.

3. Software Development Kits (SDKs) & Application Program Interfaces (APIs). Some customers already have a well-established mobile strategy, so we also offer the ability to integrate our features into existing mobile applications. This capability is central to our strategy to establish indirect channels where we can take advantage of partner relationships and scale more rapidly.

4. Interoperability. No matter the industry, our customers work with any number of partners in order to effectively run their businesses. That's why working with Phunware can be a force multiplier. We are not one mobile application to replace them all, but rather one mobile application to rule them all. Our cloud platform can deliver interoperability-as-a-service and seamlessly unify disparate third-party solutions inside of one mobile application with one secure, single sign-on (SSO).

5. Blockchain. Everything outlined so far is all about engagement, but if engagement is so valuable then there is an opportunity to not only incentivize engagement, but also authenticate who is being engaged. These are perfect examples of where blockchain is more effective than many existing solutions. With PhunCoin and PhunToken, we are the first public company to launch digital assets that are

being designed to deliver these capabilities to enterprises in a compliant manner. We have also launched PhunWallet as our own native, persistent mobile application to manage this dual token ecosystem.

Will you discuss the shift to a mobile-first world and how digital transformation is impacting businesses across all industries?

Last year, people spent a third of their waking hours on their phones according to the App Annie State of Mobile 2022 report. That's almost five hours per day. Let that sink in for a moment.

Statista estimates that an astounding 90 percent of the global internet population uses a mobile device to go online. Advancements in technology and improvements in form factors have made mobile so ubiquitous we don't even say mobile phone anymore; we just say phone because what else would it be? With consumers spending 3.8 trillion hours on their phones, any organization that doesn't have a mobile strategy is being left behind. However, just knowing that is not a strategy.

We live in a very connected world, yet somehow, we remain disconnected from it. Recall the last time you walked into a grocery store and ask yourself if technology sprang into action to serve you. Where are the holograms from the movies? Why isn't augmented reality (AR) a thing? Does your phone even come out of your pocket other than to remember what your partner texted you to not forget? We got excited about the rise of IoT, but we lack the software layer to connect people on their phones to the internet of things in real-time to meaningfully drive digital transformation forward.

How has blockchain technology enabled the creation of a decentralized data economy, unleashing contextual engagement opportunities for Fortune 500 brands?

Crypto is a house of cards built on hubris, fraud, and confusion, but blockchain remains one of the greatest innovations the global economy has ever seen since the Medicis commercialized double-entry accounting. Just like the dot-com boom when wantrepreneurs either cashed out or flamed out, market corrections like the one we're experiencing now are

important because what emerges from the ashes of failure are companies like Phunware that are accountable to their shareholders and will usher in lasting change that realizes blockchain's true potential.

Just like Bitcoin proved two parties could transact in a trustless manner without an intermediary like a bank, brands and consumers do not need data oligarchs in the middle who profit from the exploitation of consumer data without consent. A decentralized data economy, which Phunware is helping to create, will put consumers in charge of their data and enable brands to efficiently reach the consumers who are most willing to pay attention.

What would you tell leading brands about the most effective ways to engage, manage and monetize their global audiences and communities?

Often referred to as the Father of Modern Advertising, John Wanamaker once said, "Half the money I spend on advertising is wasted; the trouble is I don't know which half."

Since the dawn of commerce, brands have been trying to reach consumers. Advertising can actually be traced back to ancient civilizations, but it's still widely defined as "the action of calling something to the attention of the public, especially by paid announcements." While platforms have evolved over time, the intent has always been the same: drive awareness in the hope that increased awareness can be monetized.

In the early 2000s, personal computers enabled brands to more easily reach consumers with one of the most obvious examples being the proliferation of AdWords by Google. This was just another iteration of the same hypothesis that a brand can effectively brainwash consumers by saturating them with content anywhere they are at any time with very little discretion in order to drive awareness in the hope that the consumer thinks of the brand when it's time to buy. Yet, consumers have been conditioned to ignore things like banner ads, pop-ups and billboards. We DVR shows to fast-forward through commercials and we subscribe to streaming services to avoid them altogether.

We have limited attention spans and are living in an on-demand world where we want what we want, but only when and how we want it. Phunware is uniquely suited to deliver this kind of on-demand experience because our enterprise cloud platform enables brands to source, curate, and take action on information from the virtual world in order to inform and enhance real world experiences.

Whether it's launching our Smart Hospitality Solution for Atlantis to help guests explore every inch of the 140 acres that make up Paradise Island in the Bahamas, which generated more than half a million dollars in booking revenue in the first few months, or delivering a next-generation Smart Workplace Solution for Norfolk Southern to reimagine the office experience, Phunware's platform is a mobile concierge for any industry so that any brand can contextually engage anyone.

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What needs to be done to provide consumers with full sovereign control over their personal data?

From GDPR to CCPA to corporate policies, there has been a dramatic shift in favor of increased privacy and stricter regulations when it comes to accessing the kind of data that technology companies need in order to make brand engagements more targeted and personal.

Self-sovereign identity (SSI) recognizes that an individual should own and control their identity, but blockchain may be our best hope to achieve this since it can shift identity and credential management from the client-server model, Web2, to a peer-to-peer model, Web3. However, many of the most popular Web2 platforms would cripple the Web3 infrastructure that has been commercialized to date. Technology companies like Phunware will have to find innovative ways to bridge the gap between external data on the existing web and blockchain-based applications on mobile.

For example, we acquired Lyte Technology to explore the ability to deploy a decentralized oracle network that could function symbiotically with PhuWallet. Instead of housing high-performance computers in centralized warehouses called data centers, what if we could deliver the same capabilities by creating a mesh network across high-performance computers distributed all over the world that process mobile data at scale?

As Buckminster Fuller once said, "You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete." To provide consumers with full sovereign control over their personal data, we must build a decentralized data economy that allows individuals to determine when, where and why to provide access to their credentials, but we'll likely need a centralized effort to ensure success. We need benevolent centralized organizations with the resources and sense of urgency necessary to commercialize these decentralized ecosystems and capabilities.

How critical is it for Phunware to build a diverse and inclusive workforce to bring diverse perspectives and experiences to the table when addressing client needs?

Very. At Phunware, 42 percent of our workforce is from underrepresented groups and

I just oversaw the replacement of an archaic "Men and Women" bathroom sign in our new office with one that reads simply, "All Gender." But I can't take credit for this because it was an oversight brought to my attention by one of our all-star executives, Suzy Elizondo. I have so much pride in her, but I am also proud we are building the kind of culture that celebrates not only our differences, but also identifying areas where we can improve.

Having served in the military during combat operations, I understand intimately what it means to lead a diverse workforce. The United States Armed Forces are all-volunteer and proudly diverse because people of all demographic, cultural, ethnic, religious, and racial backgrounds come together to serve one purpose: defend this nation. Of course, there is still plenty of work to be done to further diversity and inclusion both in the military and at Phunware, but I have seen firsthand how different perspectives and experiences can be brought to the table if leaders are wise enough to ensure enough seats.

What do you see as Phunware's responsibility to the communities it serves and to being a force for good in society?

At Phunware, as with most technology companies, we can reach and therefore serve the global community. We want to transcend traditional boundaries and transform the digital human experience to better connect all of us through technology not only to each other, but also to the brands we love today and the ones we may discover tomorrow. Having been born in 1980, my generation grew up analog, but we were young enough to learn and embrace digital as we came of age. We remember what it was like to self-organize and self-actualize without technology. We must not trade our humanity for convenience.

While there is a lot of talk about engaging in the virtual world, make no mistake, the metaverse is a marketing gimmick that will not live up to its promise for years to come due to hardware challenges, bandwidth constraints, form factor issues and general consumer acceptance. The next step in engagement is not to create a virtual world to escape the real one, but rather to tech-enable the real world to make it a better one.

How do you balance the short-term, quarter-to-quarter pressures for financial results with the need to make long-term investments for the company's future?

Carefully. And sometimes on one foot with a headwind, while balancing a teacup on my head. Being a public company is not easy. You have to not only master the business of being in business, but also the business of being public. Admittedly, we have faced challenges in the process of growing. We went public via a SPAC before SPACs were cool, we didn't have a bank take us out and we raised virtually no money.

Although we now find ourselves fighting in the trenches of microcap hell, I believe we remain a small cap company masquerading as a microcap. I truly believe we would be raising money at a pre-money valuation of at least \$500 million if we were private today with what we have to offer. However, this kind of value imbalance is not uncommon in the public markets because we aren't a household brand yet.

You could have invested in Amazon under \$100 for a decade and taken advantage of at least four market crashes when the stock price fell by at least 60 percent, while they built an unbeatable competitive advantage for an on-demand economy years before anyone knew what an on-demand economy was or why they needed it. We are getting more disciplined about how we leverage cash to minimize dilution and in 2023 we will remain laser focused on our core competencies around enterprise software.

We are investing in and building an unbeatable competitive advantage for on-demand experiences and we're at an inflection point. In 2021, revenues grew 50 percent from Q2 to Q3 and over 150 percent from Q3 to Q4. We ended the year with a much stronger balance sheet and did 312 percent YoY growth in Q1 of 2022 and 282 percent in Q2. We will continue to be opportunistic about inorganic growth opportunities, but are bullish about a \$50-million+ pipeline that we're seeing an increase in activity from as the world works to move past or at least co-exist with COVID-19.

What do you feel are the keys to effective leadership and how do you describe your management style?

Effective leadership is like air: it's hard to picture, but you know when it's not present. I think most leaders rarely stop to think about what makes them an effective leader because they are focused on being effective, not necessarily leading. I make the distinction because there's no room for ego and a leader must be able to delegate. A leader must be accountable not only to those who are being led, but also to any limitations a leader may have. This kind of authenticity is a cornerstone to my management style.

I have no problem leading with purpose and by example, but I don't have to be right. It's more important to me that I get it right. I would never waste my time driving in circles if I could just pull over and ask for directions. I strive to surround myself with the smartest people possible and create an environment that welcomes constructive collaboration as well as failure. Effective leaders only serve at the pleasure of those who are willing to follow them. ●