



# **The Cyclops Strategy**

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## Executive Summary

Cyclops Technologies is a small company with big ideas. John Chigos, Cyclops founder and CEO, has always been a visionary with a mission—to fight crime and terrorism and protect innocent lives. The Company's makeup and evolution bear a resemblance to some of the giants in the security industry, having accomplished several major milestones in a short time with limited resources.

Cyclops has been on the vanguard of License Plate Recognition (LPR) technology since the Company's founding. It was the first to create software-only Mobile LPR solutions for law enforcement that could work with any existing camera, required no dedicated processing hardware to function, was completely covert, and was capable of capturing and analyzing video in full color. In addition to being a massive cost savings, the software was judged by independent third-party evaluation to lead the industry in LPR accuracy. Cyclops' ARES LPR-based video analytic software has received similar accolades, winning back-to-back awards for excellence in 2013 and 2014. Based on the same capture engine powering PlateSmart Mobile, ARES also boasts a full suite of analytic features never before available in an LPR-based product. Additionally, it has been integrated smoothly with any video surveillance system including Video Management Systems (VMS) by Exacq, OnSSI, and Pelco by Schneider Electric. Cyclops is also in negotiations for a partnership with Milestone, the biggest and best-known VMS maker in the business.

New generations of ARES will take these features to the cloud and add newer and more innovative data acquisition and analysis tools. The roadmap for Cyclops' future is clear—this is the company that will revolutionize video analytics.

## Born on 9/11

John Chigos' first inspiration for Cyclops Technologies came about as a result of the terrorist attacks of September 11, 2001. That day made Chigos, like so many others, more keenly aware of the dangers Americans face both domestically and abroad. This included police officers who were shot and left for dead on the side of the road during what should have been routine traffic stops. It also included abducted children, who too often became AMBER Alerts and were by that time as good as gone. There were also more terrorist attacks, such as those in Oklahoma City and Beirut, which were likely to come. There had to be a way that technology could be used to quickly pull the record of the driver of that stopped vehicle, or track a suspected child abductor, or identify a potential terrorist casing a sensitive facility.

Chigos knew that most everybody drives. His research bore that out; statistics show that approximately 75% of all crime, terrorism included, is linked to a vehicle. Further

investigation led him to License Plate Recognition (LPR), a technology long used in Europe for traffic management, and which was being developed for anti-crime and anti-terrorism purposes. Digging further, he found out why LPR had not taken the U.S. by storm.

Simply put, the technology could not handle U.S. plates. Having been invented in Europe, where the size, color, and fonts of license plates were standardized, LPR would simply be overwhelmed trying to read the incredible variety of plates available in the United States. Furthermore, European-based LPR systems were expensive—they required specially designed cameras and dedicated processing hardware to function. Only the most affluent of police departments would be able to afford the \$25,000-\$35,000 per vehicle price tag. Many of the European vendors of LPR tried to market their product in North America; however, faced with slow adoption of the technology and declining revenue, they often turned their attention back to Europe.

Chigos knew that smaller departments needed LPR as well as larger ones; in other words, LPR had to be mass deployed, establishing a nationwide collaborative network, to be truly effective. The only way this would happen would be for someone to create a software-only LPR solution that was compatible with any existing security camera, including off-the-shelf IP models and legacy analog models, and required no special hardware, in order to mitigate cost. It would also have to be hyper-accurate when reading U.S. plates *and* be capable of distinguishing state jurisdictions to be truly effective.

From that day forward, John Chigos was on a mission, and that mission-centric focus became a cornerstone of the company he founded, Cyclops Technologies. Cyclops created that new sought-after LPR solution, which it named PlateSmart. PlateSmart underwent rigorous research and development, with Cyclops staff collaborating closely with law enforcement to give them the tool they wanted and needed. At the same time, Chigos was approached by independent third-party experts to put the software through its paces and prove out its accuracy. The experts' testing indicated that PlateSmart had accomplished its goal of 90% or better accuracy with any license plates, U.S. plates included. It also showed that the software could recognize all 50 state jurisdictions, which to this day no other LPR solution can do. It was also completely covert and protected from harsh weather, since it could work with interior-mounted cameras, and captured and analyzed full-color images, instead of the black-and-white images of its European predecessors.

PlateSmart was an immediate hit with law enforcement, making its debut at the 2012 Republican National Convention in Tampa, Florida and subsequently winning customers across the country. Police departments were thrilled with PlateSmart's unparalleled ability to provide mission-critical actionable intelligence in real time.

## Growth

Building on the success of PlateSmart, Cyclops looked to expand its reach beyond law enforcement into the government and private sectors. To do this, Chigos knew that a brand new solution would be needed, something that incorporated LPR but also included the ability to mine and filter data to recognize movement patterns, track changes in parking lot counts, and otherwise identify and track vehicles for security, investigations, or even business intelligence. That solution would be known as ARES. Like PlateSmart, ARES would boast industry-leading LPR accuracy, but it would also feature data mining capabilities never before available in an LPR-based product. A software-only solution like its predecessor, ARES would also work with existing cameras and integrate easily with Video Management Systems (VMS) such as those made by Exacq, OnSSI, and Pelco by Schneider Electric. This would earn Cyclops integration partnerships with these companies that continue to this day, and also pave the way for the Company's current negotiations with Milestone, the best known VMS maker in the industry. With the debut of ARES, Cyclops had officially expanded far beyond law enforcement and was soon to become a standard tool for many users.

As often happens with companies that create groundbreaking technology, Cyclops' first sale of ARES was made to the Federal government. The Naval Criminal Investigative Service (NCIS) of the U.S. Navy awarded a sole-source contract to Cyclops. The Undersecretary of the Navy, in announcing the contract, stated that ARES was the only LPR solution that could meet the agency's specific and high-level needs. The NCIS remains one of Cyclops' greatest proponents as well as a client, and has been joined by universities, casinos, maritime ports, hospitals, and public transit authorities in major metropolitan areas. At the same time, Cyclops' ARES continues making inroads into the Federal sphere; the Company is currently negotiating contracts for the software with several well-known agencies, such as the FBI, Department of Defense, and U.S. Postal Service, much as some of the titans of Silicon Valley have done. Additionally, ARES has won the coveted 2014 Platinum Govies award, which recognizes excellence in government security products. Chigos is proud to have brought Cyclops so far in so short a time, a feat no comparable technology firm has accomplished.

Cyclops' achievements have brought notice to Chigos himself. He is a leading commentator on technical and legal matters dealing with LPR on LinkedIn. He also has an extensive list of interviews and editorials where he has expressed his views on the industry. Always passionate about the protection of individual liberties while fighting crime and saving lives, he has spoken out about some of his competitors who engage in the mixing and reselling of public and private LPR data, a practice he strongly believes to be unethical.

Taking a stand has not been without cost to Chigos. To this day, he regularly receives threatening emails, which he disregards in favor of what he knows to be the right thing. Even so, he has hired an ex-law enforcement officer to escort him to events where he might be in some physical danger.

## **Into The Future**

The future holds great promise for Cyclops Technologies. Within a short period of time, the Company will be able to offer the power of its ARES solution in a cloud-based Software-as-a-Service (SaaS) model, which will result in untold cost and bandwidth savings for clients. The next generation of ARES will also see enhanced data acquisition capabilities, adding facial capture, thermal imaging, and camera association to its award-winning License Plate Recognition Solution.

ARES' future roadmap will see additional enhancements to its analytics feature set as well as incorporating the ability to import third party data streams alongside its own video data. This will result in a truly unique kind of intelligence software, a solution that does data acquisition from video, acquires additional outside data when needed, and includes an unprecedented range of built-in tools for analysis of that data.

In short, the future of Cyclops will be the future of video analytics itself. Chigos' vision has predicted and met every important milestone, and his Company has been able to develop relationships with the leading players in the industry. Cyclops is poised to shepherd the evolution of License Plate Recognition into the ultimate vision its creators conceived of years ago. This transformation of the video analytics industry is Cyclops' goal and its ongoing strategy.