

## **AvidBeam Case Studies**

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#### Case Study #1 : Real-time Processing for Smart Cities (Shanghai, China)



- A top Camera Surveillance vendor worldwide in <u>Shanghai</u>, <u>China</u> was interested in scaling video processing of live camera feeds for thousands of cameras deployed in the field.
- > The main problem was to how to achieve real-time processing.
- We deployed the solution on <u>Amazon AWS</u> and demonstrated multiple computer vision algorithms processing of large number of input camera feeds simultaneously and in real-time. We derived a formula that describes the relationship between real-time processing and number of available resources for a given set of input feeds
- ➤ ATUN<sup>™</sup> supports distributed processing over thousands of cores in the cloud and can scale performance linearly as the number of resources available for processing increase.

#### Case Study #2 : Processing large amount of video files offline in record time (Singapore)



- Security authority entity in Singapore requested processing of large amount of collected surveillance video files to search for specific intelligence
- ➤ ATUN<sup>™</sup> was a perfect tool for this job and was hosted on <u>Amazon AWS.</u> Customer was interested in parallelization and distributed processing of video chunks in space and time to complete the process in record time.
- > Customer is interested in many algorithms for identifying and recognizing objects





- This project was conducted with #1 chip manufacturer in the world with the goal to evaluate the performance of video processing using specific hardware for Big Data tools
- ➤ We executed the project using ATUN<sup>™</sup> and ViBE<sup>™</sup> (for people detection and license plate recognition)
- The general results were documented and communicated to the customer. All test cases were conducted on <u>Amazon AWS</u>

#### Case Study #4 Vehicle Real-time Management in Cairo (EGYPT) & Bend Oregon (USA)





- A technology park gated community in <u>Cairo Egypt</u>, occupies an area of 467 acres and hosts a majority of Egypt government, IT, financial sector, hi-tech and telecom service providers entities.
- This entity requested vehicle tracking solution identifying all vehicles entering and exiting the park through multiple gates and multiple parking lots well as other query information primarily for securing that facility.
- AvidBeam delivered a solution that showcased all vehicles entering and exiting the park including tracking through parking lots. The solution used ATUN™ to process incoming data from surveillance cameras simultaneously and in real-time. This case study is captured in a video on YouTube. This solution was hosted in <u>a private cloud</u> owned by the customer. <u>https://www.youtube.com/watch?v=ti7RmlbwdP4</u>.
- We delivered a similar solution to a large RV storage facility in <u>Bend Oregon</u> and the solution can be illustrated in this link and was hosted on <u>IBM Softlayer</u> <u>https://www.youtube.com/watch?v=PFTVjXOXm7E</u>

#### Case Study #5 : Testing of Scalability at AvidBeam





- All of our scalability testing and validation are conducted on <u>Amazon AWS</u> and <u>Microsoft Azure</u>. We secured a good amount of credit with both companies.
- > Our Video Big Data tool ATUN™ is hosted on the cloud and use cloud services such as MongoDB, Cassandra, Storm, etc.
- ➤ The scheduler and the distributed processing nature of ATUN<sup>™</sup> can simultaneously process many video feeds at the same time and can segment in space and time
- Please check this video <u>https://youtu.be/IKuUiSQOgHs</u>



# Thank you



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