

ROADSIDE ANPR ENGINE/STORAGE SERVER 🏠

With the increasing need for “Automatic Number Plate Recognition” (ANPR) in Policing, Congestion Charging and Access Control applications, a leading ANPR software company approached Amplicon to provide a roadside PC and storage server solution to run their ANPR software.

THE REQUIREMENT AND THE SOLUTION 🏠

The specification required a rugged and compact PC to be mounted in either a roadside cabinet or a lamp post enclosure. It had to be capable of running 24/7 and needed to be supported for more than 10 years, this being the total length of the support contract required by the end customer.

The PC required the fitting of two PCI frame grabber boards (Picolo Tetra and Picolo Pro 2 boards) that connected the analogue cameras to the system. The cameras were mounted on a road-side pole providing both a front and overview image of vehicles passing through the ANPR system.

Many of the remote locations in which the ANPR systems were deployed had no internet connectivity and the prices quoted by telecommunications companies to provide such a service were prohibitive. For this reason, Amplicon provided the option of a GPRS / 3G router to allow communication back to the central control room. At some sites, cellular connection speeds in excess of 1Mbps were available because of the HSDPA (Super 3G) network coverage that existed at these locations.



Connectport WAN VPN

Industrial Grade
3G/GPRS Router

2 x RS232 and

4 x Ethernet Ports

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The increasing requirement to record pre and post video of the ANPR event trigger, a reliable storage server was required in the control room to enable an operator to review the video to confirm whether an offence has been committed.

THE RESULTS ▾

With the importance of running the ANPR software on a rugged and reliable PC in roadside conditions and providing a solution that requires minimal maintenance over the duration of the contract, the Impact-E 72 was suggested to meet the extreme demands of the application.



Impact-E 72
(Roadside PC)

Intel Pentium M
1.8GHz

2 x PCI Slots
Expansion

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With its small and compact design, the Impact-E 72 was the perfect choice as space within the roadside and lamp post enclosures was limited. Very few embedded PCs offer the ruggedness and small form-factor of the Impact-E 72 whilst providing 2 PCI slots to house the frame grabber boards.

Amplicon's engineering team worked closely with the customer's engineers to make sure the system would withstand the rigours of 10 years of outdoor use. To extend the PC's life-time, provision was made for additional cooling of the system to remove the excess heat generated by the processor intensive video cards.

Along with the road side PC to run the ANPR software, Amplicon was also able to provide a storage server solution that was built and configured to customers specification to record video for up to 31 days recording.



Impact-S 2000

19" Rackmount
Server

Up to 32 TB
RAID options
available

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WHY AMPLICON? 🏆

Amplicon was the supplier of choice as we were able to offer 40 years experience with industrial electronic systems encompassing data acquisition, industrial networking and computing solutions. By talking to one of our Security Automation team , the right equipment was selected on time and within budget. Further work from Amplicon's engineering team meant that the solution was customised to meet the exact requirements of the application at 'off the shelf' pricing.