<div align="center">The Genesis of HDcctv Alliance</div>

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How does a new thing get started? A company, a technology, or even a global interface standard: where does it come from? Necessity may well be the mother of invention; if the timing is right and the right people are committed to making it happen, an idea can materialise into substantive reality. This article addresses the question, "Where did HDcctv come from?"

My personal awareness of HDcctv technology, and its potential implications for the surveillance industry, first formed on the 2nd day of ISC West 2008. At that time, my job was to create surveillance equipment manufacturing solutions for leading OEMs. During a meeting that day, a key customer commented, "all this CCTV and IP equipment is interesting, but what would be really great would be a way to <u>unlock HD for the installed base</u>." It seemed a casual observation; the only existing solution for HD surveillance was MP IP cameras, but installers and end customers were slow to adopt IP cameras for a variety of reasons. Was there an alternative that would be more readily accepted by the CCTV market?

Fortunately, an alternative presented itself that very night. Following a dinner meeting at a steak house in Las Vegas, I pushed back my chair to get up from the table. I inadvertently bumped the chair of the person sitting behind me at the next table. When I turned to make my apologies, who was sitting there but my old friend Ohba-san. Ohba-san is a senior engineer from a semiconductor manufacturer's representative in Tokyo, a company whom I had signed to represent Pixim and who also represents Gennum, a maker of chips for high-speed digital communication. Ohba-san happened to be dining with Gareth Heywood, Gennum's surveillance market manager.

Ohba-san introduced me to Gareth, and we got to talking about Gennum's products for surveillance. Gareth described a compression-free transmission technology called HD-SDI (High Definition Serial Digital Interface). HD-SDI had been connecting HD cameras over coaxial cables to control consoles in TV studios worldwide for the better part of a decade. The opportunity immediately seemed clear: Could we adapt that proven technology to the needs of surveillance, make it possible to re-use all the coax in the field for HD surveillance, and thereby unlock HD for the installed base?

Throughout 2008 and into 2009, my fascination with the idea of 100% digital transmission of unadulterated 720p and 1080p video over coax deepened, and I realized that others shared the vision. The codec chips from Stretch readily met the digital processing requirements of HD cameras and HD DVRs, while the engineers at EverFocus, Comart, and OVii began to design products taking advantage of the digital interface technology.

One year after those initial discussions, the team at EverFocus mounted a compelling demo of the technology in a suite at ISC West 2009, including live views and playback of unprecedented image quality. Many industry people had the chance to see that demo, and they were duly impressed. However, most of the visitors were hesitant to embrace this new interface technology. Why? Because almost to a man, the visitors believed that the surveillance world was already well on its way to becoming one great big IP camera. It would not matter that the new interface

technology could deliver higher-quality images, with lower latency, and maybe even at lower cost than MP IP cameras; by the time this technology could be made widely available, no one would care because every camera would be an IP camera.

As we were dismantling the demo at the end of that show, a small group of us gathered in the EverFocus meeting room, including Michael Kimball of EverFocus, Albert Wang of Stretch, Craig Scott of OVii, Gareth Heywood of Gennum, and myself. [Have I forgotten anyone?] We agreed that there needed to be a standard to guarantee performance and interoperability. We also agreed on the need to promote this new interface technology within the surveillance industry and the end market. Craig Scott declared, "There needs to be an alliance, like those that manage USB and HDMI."

Upon returning home from that trip, I took it upon myself to create HDcctv Alliance Limited. Managing the Alliance became my full-time job in May 2009, and we launched the following month. The companies represented at that ISC West 2009 meeting, along with Comart and CSST, joined the Alliance as its Charter Members.

These last two years have been a blur of activity. With a growing variety of compliant products listed at http://highdefcctv.org/compliant-product-finder, it is fair to say that HDcctv is established as a viable alternative for HD surveillance. At the same time, our work on the standard and our work to promote the interface is just beginning. I look forward to continued progress in the years to come.