



NATHAN MARTIN
CEO and President. DeepLocal, Inc.

Nathan is the CEO and President of DeepLocal, Inc; a Pittsburgh based new media software company specializing in the development of mobile and location-aware applications. DeepLocal is a spin-off of Carnegie Mellon University and holds an exclusive license to the Maphub collaborative mapping platform developed while at the CMU's art and technology research lab, the STUDIO for Creative Inquiry. Nathan has over ten years of experience leading interdisciplinary teams in the creation of interactive systems. Nathan was a Research Fellow and Artist in Residence at Carnegie Mellon University for three years before launching DeepLocal. Nathan is also founder of an internationally exhibited art group known as the Carbon Defense League, which has a ten-year history creating media art that has received both praise and criticism from media outlets such as the BBC, CNN, and ABC. Nathan is the founder of two musical groups, a now defunct internationally touring band and an experimental sound art group. He has taught Art and Design at the university level and was recently recognized as one of the top 40 entrepreneurs under age 40 in the country. He has worked for clients including Palm Computing, General Dynamics and NASA. Nathan holds an MFA in integrated electronic art from Rensselaer Polytechnic Institute and a BFA in electronic and time-based art from Carnegie Mellon University.

JULY 17, 2008

HOW THE WIRELESS CARRIERS ARE RESTRICTING MY COMPANY'S ABILITY TO DEVELOP COMPETITIVE PRODUCTS

I have worked on the development of advanced wireless applications that utilize SMS Text Messaging technology for two years as the CEO of a startup software company and for three years as an Artist and Researcher at one of the country's leading research institutions – Carnegie Mellon University. During this time I have come to know first hand the real-world impact of the usage restrictions, review processes, sliding scale pricing, and competition limits used by wireless carriers such as Verizon, AT&T, and TMobile to stop innovation from happening anywhere outside of their own marketing and technology departments.

My company currently operates several applications that use a shared short code number provided to us through a partnership with another company which is the official registerer of the short code – 27126. These five little numbers seem so harmless but behind them lies a confusing, often inconsistent, and seemingly arbitrary set of usage guidelines and limits designed to yield the very highest amount of financial return for each carrier with the least amount of threat from outside developers. In 2004 we operated what is known as an SMS gateway from my office at CMU. That SMS gateway consisted of a cell phone attached to a computer that operated on an unlimited text

messaging rate plan. What this allowed us to do was to use a long code (a full ten digit number) to operate an SMS service. We could receive text messages, read the content, and deliver an appropriate response, and we could do it all for the low cost of \$39.99 a month.

Several years later, now operating a business that often provides SMS text message based solutions, I attempted to discern if what we had done was in fact legal. The answer has yet to be determined. And it should be noted that we no longer use our own SMS gateway because of the inability to answer this question. After conversations with wireless carriers, the short code registry itself, and other software companies, the best verdict I could get was that it was not illegal "per se," to quote the US Short Code Registrar, but was most likely going to be shut down once the wireless carriers learned what I was doing. "They wouldn't like it" was the best response I could get. The carriers themselves were equally as disappointing, not quite knowing what to say or where to direct me.

So my company gave up on operating the low-cost long code option and decided to accept the cold hard truth as we thought we knew it and register our own short code with the registry. Herein lies an even greater dilemma – what are we allowed to do with it and what will it cost? Questions that seemed fairly straightforward but alas were not able to elicit a complimentary straightforward response. We were told by the US Short Code registry that the base registration fee for the short code with their agency was \$500-\$1000 monthly. This registered a short code solely to my company. That seems expensive but fair. Of course it was not this simple. Each application that we wanted to build on the short code (imagine a text to vote campaign or a text message based game or alerting system) had to be written, developed, documented, and submitted on paper with a test sequence to each provider that the application was to be available on. At which point each carrier would have to hand review and test the application for content and accuracy (a process that was estimated to have taken between one and three months) and then determine a fee that they would like to charge me to allow the application to operate on their network. This is getting even worse I thought to myself. But it didn't stop there and still doesn't to this day.

The review process does not cover the development of what my company DeepLocal was building. We had developed a tool to create all kinds of services and applications from finding nearby events, to tracking your friend's whereabouts, to playing a scavenger hunt from your phone. There was not a single application. This was not a "joke of the day" service. How were we to have a clear test sequence for applications that were not basic call and response but were instead much more sophisticated session-based applications with user profiles, social networks, and ongoing games? We were told that we would need to apply for and receive sliding scale fee determination for each application with each carrier. The price we were told would be at least \$500 per carrier per month. The price to do this was clearly beyond our budget.

The only glimmer of hope provided to us by the short code registry was to become an aggregator. If we were to become a licensed aggregator they said, (again, more confusion) then we could develop our own platform without the need for approval of each application. "How do we become an aggregator" popped from my mouth almost instantly (again expecting a straightforward answer to a straightforward question)? We were told our best bet would be to find an existing aggregator, develop at least ten applications for the aggregator with their existing clients and then request approval in writing from each wireless carrier granting us the ability to freely operate our own services from a short code that we would still be paying to register.

So we were left with our only option of working with an existing gateway provider that had what is known as a "grandfathered short code" – one purchased before the wireless carriers got even more restrictive about uses. To this day, this is how we must operate as a business and we pay a flat fee per message, much of which goes directly to the wireless carriers.

This confusing and arbitrary policy used by the wireless carriers restricts our ability to develop innovative and creative solutions in a timely and cost-effective manner. The U.S. citizen and end user suffers as more and more exciting applications are developed in Europe and Asia that employ text messaging. Here, we have the carriers to contend with. So to the carriers represented here today I have one simple question that again begs for a straightforward answer: why was I able to do for free and in a matter of days three years ago what today will take me half a year of approvals and cost me tens of thousands of dollars a month? You own the channel - now let me compete!