

Critical Communications Business Plan Executive Summary

The Company, the Industry, and the Opportunity

Critical Communications LLC (Critical) meets the enormous and expanding demand for continuous mobile wireless access to network services and data. Critical's products and services solve challenging problems, providing reliable, secure, manageable, high performance network services, despite severe underlying wireless network constraints. Attempting to meet the demand for reliable enhanced services, WiFi/WiMax, cellular, satellite and other Network Service Providers (NSPs) are expanding capacity and coverage by building out infrastructure. In support of NSP buildout, hardware Original Equipment Manufacturers (OEMs) are constantly improving the range, capacity and other performance parameters of their designs. Both these target customer industries annually invest hundreds of millions of dollars on equipment upgrade and buildout to create and maintain marketable competitive advantages. Nonetheless, there will always be coverage gaps where services are unreliable or unavailable, new applications that demand more bandwidth than can be made available, and users' demands for continuous application availability despite these wireless limitations. Critical's product/service line will both enhance the users' experience of network services and reduce the NSPs' buildout investment required to provide such reliable enhanced services.

Critical will expand into wireless networking industry segments that have continued to grow, despite general weakness of the IT industry, during the last 5 years. Since 2000, the wireless networking industry has seen an annual growth rate greater than 4%, despite the recession of 2000-2002 (-4.13% economic growth). The forecast annual growth of the industry is approaching 20%, which is a more than double that of the average US industry projection. On the supply side, the US wireless networking industry size is expected to grow to \$322 billion by 2007-09. On the demand side of the equation, total end-user wireless LAN product (infrastructure, switches, gateways, modems, NICs) expenditures are forecast to grow 97%, to almost \$3 billion. The mobile device markets (PDAs, Smartphones, Pocket PC, etc) shipped 6 million new units in 2004, and revenues for data-centric devices (wireless handhelds, RFID tools, etc) were up 26%. By 2009, the overall PDA market is expected to grow to \$10 billion, while the market for wireless user applications (already at \$11 billion) is expected to grow to \$90 billion. The wireless share of outbound telephone minutes grew from 11% in 2001 to 20% in 2003. The wireline to wireless migration is anticipated to continue, as the total number of wireless subscribers is expected to top 150 million, reflecting market penetration to 60 percent of the US population. Worldwide, wireless subscriber penetration for developed countries will reach 92% by 2020. Wireline transport of data grew to exceed wireline transport of voice only when enabled by technology; similarly, wireless transport of data will grow to exceed wireless transport of voice when enabled by Critical's technology, given the massive pent-up demand for reliable mobile wireless access to applications.

The markets are primed to invest in this product line, the users are already demanding its benefits, and the ultra-competitive NSPs have shown consistent dedication to purchasing products that provide increased performance, economically sound coverage enhancement, and competitive advantage.

Critical Communications and the Advanced Wireless Communications Controller Product Line

Critical Communications will meet these demands, neither by building out physical infrastructure, nor by improving existing radio or laptop designs, but by inserting transparent gateways and link optimization software between wireline and wireless networks. The Advanced Wireless Communications Controller (AWCC) preserves your access to network services and data when wireless communications links are poor or unavailable, and accelerates applications over any and all wireless links available as you roam. The AWCC works with all types of wireline and wireless access technology; indeed, it enables roaming, not just from hotspot to hotspot or cell to cell, but between entirely different access technologies, such as from WiFi to cellular. This is a capability for which demand has long been evident, and which NSPs and OEMs have long struggled to provide. The AWCC leapfrogs these emerging capabilities: when roaming into areas served by multiple access technologies, they do not merely use the best link, but rather aggregate the bandwidth of all. When roaming into areas with no signal, the AWCC preserves network services (such as email and web) and data access. Whether you are at work, at home, or on the road, your data is at your fingertips... even when you have poor, or no, wireless signal.

Critical's AWCC product line follows a simple, practical maxim: "Do the best you can with what you've got." Sometimes, "what you've got" is an error-prone, intermittent, one-way, slow link. With software for link optimization, prioritization and queue management for outgoing traffic, interactive caching, and web downloading options, rather than limp, the AWCC enables you to walk. Other times, "what you've got" are multiple good links. With Concurrent Multipath Routing, rather than walk, the AWCC enables you to run. For example, Critical's technology will enable users to make a cell phone connection that not only can roam from WiFi to cellular and back, but also can automatically merge these two dissimilar thin pipes into one fat pipe, optimizing performance and surviving sudden loss of either or both links. The AWCC can itself serve as a WiFi access point, using multiple cellular links as a backhaul to the Internet, creating a hotspot in and around a personal auto or mass transit vehicle. Addressing both individual user needs and expectations and the network service providers' need to acquire marketable competitive advantages and to retain their customers, the AWCC is technically positioned for long term, marketplace success.

Near term market success is based on the AWCC's unique capability of breaking the relationship between *when* a user requires access to data and *when* his device has wireless connectivity. Competing products only focus on accelerating various data services across single links, but remain reliant upon the basic requirement of a pre-existing connection in order to provide their benefit to the user. Critical's products provide efficient and reliable persistence of data access and network services to remote and/or mobile network users, regardless of wireless connection status.

The Advanced Wireless Communications Controller

The AWCC is a package that preserves and accelerates access to your data and network services in mobile, wireless networks. It allows users to keep working with their most important tools, such as email and web browsers, when they have no wireless link, and optimizes their connection when they do have a link.

Most people can recall the popular commercial, where the man walking across America keeps asking "Can you hear me now?" Have you ever noticed how convenient it is that the voice network always answers, "Yes"? Simply put, the AWCC is the solution your laptops, PDAs, and next-gen cell phones NEED when the answer from the data network is the more common "NO", or "NOT VER Y WELL", or ... nothing... as there was no link 'up' for the message. The AWCC allows the mobile user to work with their email and their search engines despite their wireless link degrading when walking between buildings in MONY Plaza, becoming intermittent when working in the valleys of Cazenovia, or dropping out while driving through the rural stretches from Syracuse to Watertown on Route 81.

The AWCC also improves the access to your data and services on the occasions when your data network answers "YES, I CAN HEAR YOU JUST FINE....FOR NOW, SO MAKE IT FAST". The AWCC ensures your usage of the link is optimized, by moving your most important data as quickly and reliably as possible. The AWCC allows prioritization of your outgoing work queue; uses data-specific compression and caching tools; and new web page download functions to ensure that you get the most performance out of your link, your wireless tools, and your time.

The AWCC can even handle the situation where your network answers "YES, ALL IS OK" on one link, and you also hear the network's "HEY, I'M OVER HERE TOO" on a different link. For example, in your downtown office, your laptop or PDA might see your desktop Bluetooth, a public WiFi access point and a cellular base station. Without user knowledge or intervention, the AWCC will find all these different links and merge them into one large pipeline.

The AWCC works *automatically* and *transparently*: rather than requiring you the user to keep a constant watch on how many bars of signal strength you have, and rush for the keyboard when you have enough, it handles all the wireless networking in the background, allowing you to use your familiar applications without concern for when, where and how you are connected. The AWCC uniquely allows for more work and less stress with same tools.

Target Markets

Critical Communications will use this marketing presentation, along with an extensive demonstration and advertising campaign, to target, address and derive substantial revenues from each of three sources.

First, Critical will sell bundled hardware/software products to large end user organizations, initially military customers (who have partially funded development of the technology, thereby proving their awareness of the need and willingness to pay for solutions). The AWCC will be sold to the military through system integrators with the necessary security clearances and established customer relationships, including but not limited to Critical Technologies Inc. (CTI), the parent corporation from which Critical Communications is spun off. CTI's facilities, management, staff and

other resources will be exploited by Critical Communications, especially in the early stages. Ongoing contract R&D by CTI will help maintain Critical Communication's competitive advantages. CTI contract client funding will in effect subsidize R&D costs of continuously enhancing and expanding the AWCC product lines. CTI contract client relationships will facilitate estimation of market demand for new products, definition of feature sets and targeted marketing. Validation of the product by channel sales to military, homeland security, public safety and other early adopter organizations will lead to channel, direct and on-line sales to large business and consumer markets.

Second, Critical will sell products and license technology to NSPs (Verizon, Cingular, T-Mobile) and OEMS (Cisco, Motorola, Nokia). Such distribution partners have the resources and relationships needed to penetrate and saturate mass markets quickly. The benefits of the AWCC will be sold as features adding value to familiar services and products. Paraphrasing an ad campaign: "We don't make the wireless network; we make it faster and more reliable."

Third, Critical will operate service bureaus, enabling users to outsource maintenance of the infrastructure. Just as WiFi cards require access points and cell phones require base stations, so Critical's mobile products require fixed equipment. Just as access points require administration and base stations require maintenance, so too with Critical's fixed equipment. Users pay NSPs to provide and maintain hotspots and cells; rather than acquire and operate their own fixed equipment, hotspot operators (Boingo, etc) and small and mid-sized NSPs can contract with Critical to provide the infrastructure supporting preservation and acceleration of their network services and data access.

Barriers to Market Entry and Competition

Technical Expertise: The US Navy and Air Force have paid Critical \$4MM over 10 years to develop AWCC technology. Only one other firm has partially solved the hard problems of operating despite poor, intermittent or dropped wireless connectivity. Fortunately, they are focused solely on military satellite communications. Would-be competitors must spend similar time and capital to acquire the needed expertise and develop a competing product, yet will fall further behind the curve as AWCC enhancements are funded with ongoing DoD supported R&D.

Customer and Market Knowledge: Critical has developed information technologies, networked sensor systems, storage networking products, and wireless networks for military and commercial clients since 1991. This industry experience and network of contacts allows Critical to respond rapidly to emerging market trends, and to navigate through complex procurement processes of government and large corporate customers.

Beyond the competitive barriers, competitive advantages will be maintained through ongoing technology and product upgrades. The extensive experience of the principals within this problem space, the technologies applicable to their solution, and research already in progress will enable substantial product line expansions and benefit enhancements. Long-term technology and market plans to maintain competitive advantages are available under Non-Disclosure.

Investment Opportunity, Financial Projections & Use of Funds

Critical Communications LLC seeks \$5MM in the first of several investment stages, from investors with experience in the information technology or wireless networking industries, in order to support several objectives:

- productization of the working prototypes
- extensive, external, certified testing and validation
- advertising, marketing, demonstration and sales operations
- initial 3 year growth plan to 81 employees and 5 satellite offices

\$50MM in gross sales and \$10MM in net profit before taxes should be achieved annually after year 3. Such revenues and profits yield a total market valuation over \$150MM for IPO or acquisition by the end of year 5. 40% of 1,000,000 common shares will be offered at \$25 per share in 2 private investment rounds. 60% will be retained by the parent corporation, founders and employees who are contributing the expertise, intellectual property (including working prototypes) and relationships with customers (who have subsidized a portion of the technology development).

Critical is the leader in preserving and accelerating mobile wireless access to network services and data. While this technology was developed for DOD users who saw the need early, awareness is now dawning in corporate markets. Large and growing numbers of mobile workers demand reliable fast access to network applications. Unreliable slow wireless links have prevented deployment of such enhanced services. NSPs and OEMS are seeking solutions. Critical has these solutions now, and will use proceeds of this offering to productize and sell them to major players.