

Why Industries Are Going Rugged

A Rugged New Era in Mobile: Building Mobile Devices for a New Wave of Industry Users

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As smartphone ownership and usage increase, the demands of consumers and businesses are changing. New operating systems, better cameras, voice assistants and apps that deliver whatever we need are, according to many surveys, considered as important to our everyday lives as food, water and sleep. And as our dependence grows, the demand for rugged devices that can stand up to the bumps and bruises of the real world grows with it. For businesses, rugged devices that can thrive in the most challenging settings are on the rise.

While just about any industry will benefit from rugged mobile devices, military-grade rugged devices represent a unique opportunity for industries that have traditionally relied on rugged technology in one form or another – manufacturing, construction, transportation, engineering, etc. These industries, which operate in often challenging environments, will realize expedited ROI by deploying rugged devices, and increase the flexibility and agility of their approaches to technology. Industries like manufacturing have been patient in adopting traditional, consumer devices, with good cause.

Device failure in manufacturing environments can set off a domino effect of problems. But with rugged devices that meet the highest standard for durability – including Military Standard 810G and IP68 – at new, consumer-friendly price-points, manufacturing and others can feel comfortable making the switch. According to VDC, it's already happening: "Over three-quarters (81%) of manufacturers have the ability to view machine data on mobile devices—an integral step towards a more connected factory environment."¹

The Rise of Rugged

Enterprises are increasingly demanding a trifecta of value that includes durability, functionality and security. Rugged makes financial sense as well – rugged devices can save 46 percent on the cost of business mobility, increase productivity as well as extend the life of devices². Features like fingerprint security, advanced action cameras, and the latest Android OS are becoming requirements, but cutting-edge rugged technology, including true water-, shock- and dust-proofing, certified to military standards, are becoming equally important. Enterprises are looking for extensive security measures in rugged devices, including biometric fingerprint authentication, Android for Work, a user-ID encryption engine, FIPS 140-2 encryption and more. Rugged manufacturer Kyocera partners with industry leaders like AirWatch, SOTI and

¹ "2016 Enterprise Mobility & Connected Devices" VDC Research, 6/17/2016

² VDC and Kyocera 2015 [survey](#)

Google/Android to ensure that security on its mobile devices meets and exceeds industry standards.

Building Devices That are Built to Last

While many devices claim to be rugged, there is an existing set of standards for protection against the elements and the everyday dangers of life. Truly rugged devices are designed for certification to globally recognized Ingress Protection (IP) standards for protection from dust and liquids, and Military Standard 810G for protection against threats like dust, shock, vibration, temperature extremes, blowing rain, low pressure, solar radiation, salt fog, thermal shock, icing and freezing rain, humidity and water immersion.

Meeting these standards requires much more than an aftermarket case or partial water resistance. The standards were developed to ensure that devices would function in critical moments for organizations and the military while operating in incredibly harsh conditions.

To earn an IP certification for waterproofing, devices must be able to survive being submerged in water for 30 minutes without permanent damage. Rather than trying to overlay durability features on an off-the-shelf consumer device, manufacturers need to design devices to be rugged from the beginning. Instead of using technologies aimed at simply surviving in the event of water ingress, some manufacturers like Kyocera use design tools like gaskets, air-permeable waterproof membranes and rubberized screws to prevent water from ever entering their devices. This makes the devices truly “waterproof,” as well as dust- and dirt-proof.

Meeting Military Standard 810G requires devices to survive things like drops from 6.5 feet, heavy dust, high altitudes (15,000 feet for at least two hours), solar radiation, exposure to salt fog and extensive humidity. These conditions are becoming increasingly commonplace for workers who operate in rugged environments and require mobile connectivity to drive workflows.

Doing More with Mobile

The rise of rugged is being driven not only by a demand for tougher devices, but a demand for more features that allow users to do more with their devices on a daily basis. Push-To-Talk (PTT) functionality has long been a necessity for businesses like construction and transportation. Today, service providers’ 4G LTE networks have boosted the coverage and functionality of PTT services.

PTT is a boon to businesses that would otherwise need to build out private Land Mobile Radio (LMR) networks to connect their teams with one-to-one or one-to-many walkie-talkie-style communications. According to Kodiak, a provider of one of the leading PTT platforms that operates across LMR, LTE and Wi-Fi networks, the annual cost per carrier-integrated PTT user is 55 percent less than the expense of supporting a user on a private LMR network. Dedicated PTT buttons can be utilized with major carriers, and programmed or integrated into a variety of

apps – like Pool Bus and FleetComplete – which turn devices into transportation monitoring tools.

A Prudent Investment

Traditional rugged devices were typically offered only to enterprises by specialized manufacturers and came with a hefty price tag. Today, rugged devices are now available to both consumers and businesses, and can offer a lower total cost of ownership (TCO) than non-rugged devices. Not only does this include less frequent replacement of broken devices, but also it includes factors like the nearly three hours of productivity lost with each phone failure.¹ Rugged devices hold value for a far longer period of time than their non-rugged counterparts: they cost less in repairs and replacement, do not require expensive aftermarket cases, and – most importantly – not only survive but also continue to function reliably in critical environments, ensuring that business can function without interruption. Rugged devices are no longer a luxury item – they are a sound investment.

The Future of Rugged Mobile

As data and instant communication continue to drive our lives and businesses, the mobile device will evolve to include more data-driven functionality – and become an even more critical component to our lives and jobs than they are today. The realities of life in the physical world will make rugged devices increasingly important for both businesses and consumers – especially for the industries that rely on rugged devices as core equipment in their day-to-day operations.



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