

The older generation of mobile experts who have been in this business from the very beginning will remember the first years of mobile telephony when the device data could be available to us in two clicks. However, as manufacturers have started developing security solutions for data protection, the process of actually acquiring device data has become more complex and more uncertain.

Today, mobile device security has advanced to such an extent that successful data access can no longer be guaranteed for any device. Each case is a story (and a problem) in itself.

Almost every day, we find new ways to extract vital information from overstuffed devices for our users, and it's no simple feat to rescue data from phones that show no signs of life. The chip-off method we used until recently to access data is now completely useless with the new Android devices, especially if the device cannot be turned on.

Fortunately, from time to time a tool appears that can help us overcome various problems and security protections to obtain the desired data. One such tool is Oxygen Forensic® Detective, which we used to save data from a Huawei device, model LYA-L29 (Mate 20 Pro). The device's motherboard had been short-circuited after coming into contact with water.

After verifying the malfunction and extent of the corrosion, we thoroughly cleaned the oxidized parts, then located and removed the component on which the short circuit occurred. Since the correct component wasn't needed to initialize the system, we successfully turned the Mate 20 Pro on and connected it to the computer. Then, we faced another significant challenge, which was an overfilled memory and device in the boot screen. In many cases, we overcame unsolvable situations due to the Oxygen Forensic® Detective solution which allowed us to decrypt dumps and successfully access all data.

By combining technical knowledge and innovative tools, we managed to extract all 120 GB of data from the Huawei Mate 20 Pro, including data previously deleted by the user.

So, even in seemingly impossible situations, there are solutions! However, as each case is unique and manufacturers are tirelessly updating their data protection systems, it is crucial that forensic experts like us share experiences and concrete examples.

About the Reviewer

Ante Smolaka is one of the leading Croatian experts in repairing mobile devices and one of the few forensics experts specializing in mobile devices. For 25 years he has successfully processed over 2.5 billion devices. Today, his service shop is recognized for impossible interventions and the most complex repairs. In addition, he is the co-founder of the Amodo company that is one of the world's leading insure-tech companies.