



# Accelerate Investigations with a Digital Forensics Cloud

Digital forensics—the art of recovering and analyzing data from electronic devices including cell phones, tablets, and computer disks—has become indispensable in intelligence, law enforcement, defense, and many other fields.

As digital forensics becomes an integral part of investigative processes, organizations will struggle to put the necessary software and hardware in place to ensure that investigations aren't impeded due to lack of resources. A big investigation will consume terabytes or even petabytes of storage capacity and require substantial computing resources. At the same time, the number of small investigations that have to be processed in parallel are increasing rapidly while investigators in the field often need fast and easy access to the same digital forensics tools.

Critical time is wasted pulling together the necessary hardware and software for each new case on an ad hoc basis. Forward-thinking organizations are turning to a more cloud-like approach to digital forensics as the best way to normalize digital investigation processes and deliver more consistent results more quickly.

## The Digital Forensic Cloud from Flywheel Data

The Digital Forensic Cloud is designed to help federal agencies, law enforcement, and other organizations increase the productivity and efficiency of digital investigations and gain greater control over investigative processes. The Digital Forensic Cloud is an enterprise-class solution that forms the foundation for more effective investigations:

- ✓ Provides fast and easy initial deployment
- ✓ Eliminates lag time when starting new investigations
- ✓ Enables resources allocated to each investigation to be scaled up or down on demand
- ✓ Supports specialized hardware requirements such as GPUs
- ✓ Works with popular open source and commercial forensics software
- ✓ Enables mobile and tactical field deployment
- ✓ Increases control
- ✓ Helps ensure chain of custody



*Eliminate infrastructure limitations as a barrier to expanded digital investigation*

## A Better Solution for Digital Investigators

Every case is different, and the digital needs of an investigation can change quickly. With the Digital Forensics Cloud, investigators focus on extracting actionable information, not wrestling with complex hardware and software setup.

This solution is easy to deploy in a datacenter or office environment, and, once deployed, new investigations can be initiated with minimal effort and no lag time. The resources assigned to each investigation scale up or down easily, eliminating the resource juggling that often hampers investigative efforts. Investigative teams draw storage and compute resources from a centralized pool and have access to specialized hardware (if available) such as GPUs to accelerate cryptographic analysis and password breaking.

For organizations that don't have fully defined processes and workflows for digital investigations, ensuring that chain of custody requirements are met can be difficult. The Digital Forensic Cloud provides the foundation for your digital forensics practice, with data management tools that enable complete control over sensitive data to protect chain of custody.

## Mobile and Tactical Deployment Options

In addition to models designed for the datacenter or office, the Digital Forensic Cloud is also available in mobile and tactical form factors, thereby giving investigators in the field access to the digital forensics tools they need without necessitating network connectivity.



- The mobile solution fits easily in the back of a car to be moved on-site.
- The tactical solution has been ruggedized to support rough handling and harsh environments, giving investigators full forensic capabilities in a package the size of a suitcase.

All versions of the Digital Forensic Cloud, including mobile and tactical solutions, operate identically, so there's no confusion for investigators moving between field and office.

## Fully Utilize both Commercial and Open Source Forensics Software

Digital forensic investigations can require a variety of software including popular commercial products from companies such as Nuix and Paraben as well as widely used open source software such as the Sleuth Kit and Autopsy. Installing, managing, and scaling these solutions on an as-needed basis can be a complicated undertaking.

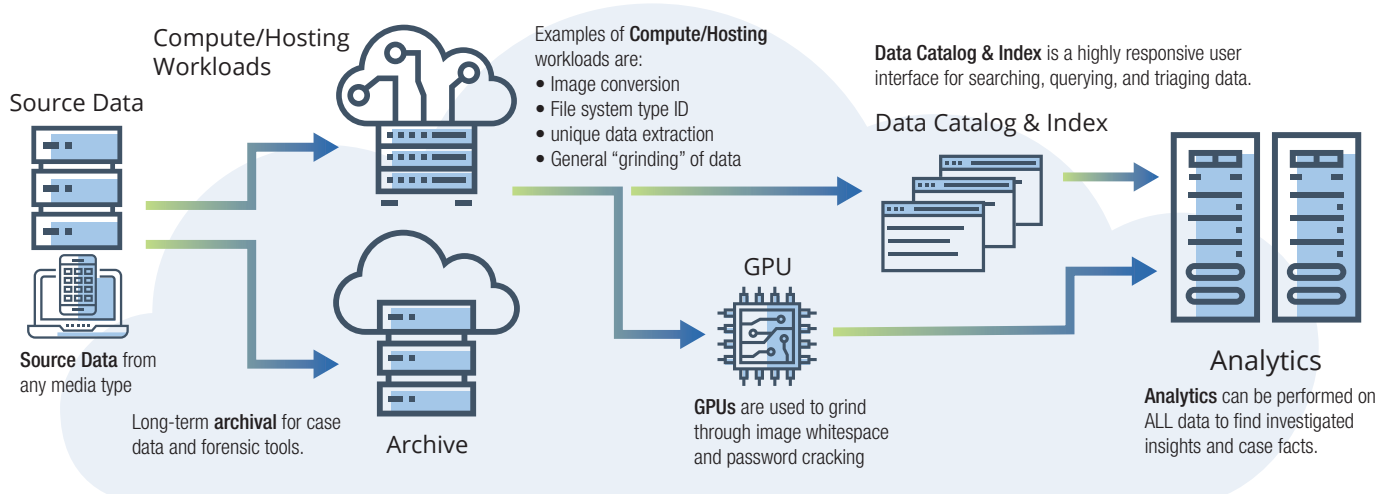
In some cases, investigators may create custom software modules that needs to be preserved for future re-use. For example, in the course of an investigation a team may encounter a previously unknown file type. Once a process has been developed to analyze a new file type, you need to be able to re-use that process quickly and easily in the future without the need to re-invent the wheel.

## Advanced Technology in the Digital Forensic Cloud

- **Nutanix Enterprise Cloud.** Nutanix is the leading provider of fast, flexible, and easy-to-manage hyperconverged infrastructure (HCI) solutions. Nutanix HCI makes the Forensic Cloud easy to deploy and scale. A variety of hardware options makes the solution suitable for datacenter, office, mobile, and tactical deployments.

- **Hadoop.** Open source Hadoop software is an essential tool for big data operations. Hadoop provides the foundation for data management and analysis in the Digital Forensic Cloud.
- **Elasticsearch.** Elasticsearch is a distributed search and analytics engine that enables investigators to quickly search for keywords and uncover information from digital assets.
- **The digital forensics software of your choice.** The Digital Forensic Cloud supports a variety of open source and commercial forensic software. (See table.) The framework can be extended to support any additional software tools your operations require.
- **Password cracking and cryptographic software.** The Digital Forensic Cloud can also integrate other specialized COTS or GOTS software for password cracking and other cryptographic requirements as necessary.

Supported Forensics Software	
Commercial Vendors	Open Source
<ul style="list-style-type: none"> <li>• Nuix</li> <li>• EnCase</li> <li>• Paraben</li> </ul>	<ul style="list-style-type: none"> <li>• The Sleuth Kit</li> <li>• Autopsy</li> </ul>



## Getting Started with The Digital Forensic Cloud

The Digital Forensic Cloud is the best way to transform your existing processes to address the continued growth in the size and number of digital investigations your organization is engaged in.

## About Flywheel Data

Flywheel Data provides elite solution design, system integration, software development, and product resale for data-driven-organizations.

Based on our experiences with the US Government and top commercial companies; Flywheel Data recognizes that data and people are at the center of a successful, data-driven organization.

Our goal is to arm our clients with the right tools, platforms, and culture to accelerate data-driven insights.

If you'd like to learn more about the Digital Forensic Cloud, you can contact Flywheel Data by phone or email.



3033 Wilson Boulevard  
Suite 700  
Arlington, VA 22201

703-647-4137  
info@flywheeldata.com