Using Druva inSync, NCI transformed its approach to data loss and recovery. Part of the National Institutes of Health, NCI is the US agency for cancer research and training. inSync—built on AWS infrastructure including Amazon EC2, Amazon RDS, and Amazon S3—solved NCI's data loss challenges.

About the National Cancer Institute
The National Cancer Institute (NCI) is part of the National Institutes of Health (NIH) and the US government’s principal agency for cancer research and training. NCI coordinates the National Cancer Program, supporting research, training, health information dissemination, and programs that research the causes, diagnosis, prevention, and treatment of cancer, rehabilitation from cancer, and the care of cancer patients and their families.

The Challenge
NCI faced several data backup challenges. For a research organization with 9,000 staff, securing and backing up data contained on endpoints—desktops and laptops—were essential. The large staff traveled frequently, often working in multiple locations, and data loss was a significant issue. That loss occurred through a combination of failing machines; lost, stolen, or dropped devices; and user failure to back up data.

As a federal agency, NCI must respond to Freedom of Information Act (FOIA) requests and requests from the Office of Inspector General, a federal government oversight division. Those requests often involve data forensics, which can require collecting thousands of files. NCI had no reliable or efficient way to perform forensic searches as they were done manually. The process often entailed physical retrieval of laptops to gather records. For busy researchers, handing over laptops for this manual process disrupted their work. NCI needed a system that was less disruptive while still meeting oversight agency requests.

Finally, NCI's mission is to lead, conduct, and support cancer research to advance scientific knowledge and help people live longer, healthier lives. NCI's IT team found itself focused more on maintaining infrastructure than on supporting the teams behind that mission.

Why Amazon Web Services
When NCI sought a backup solution, Druva inSync was one product it considered. inSync provides endpoint data protection; data loss prevention; data backup and restore; governance (visibility, control, and eDiscovery enablement); and file sync and share. It also provides device geotracking and can perform remote wipes on laptops and restore user data, preferences, and system settings.

Druva is an AWS Partner Network (APN) Advanced Technology Partner, Storage Competency Partner, Government Competency Partner, and an AWS GovCloud (US) Skill Technology Partner.

Automated backup and recovery process for 9,000 staff.

Benefits
- Drastically reduced user data loss
- Automated backup and recovery managed mostly by end users
- Speedier response to FOIA and forensics requests
- Freed up IT team to focus on mission-critical tasks
- Enabled digital transformation

AWS Services Used
- AWS GovCloud (US)
- Amazon Elastic Compute Cloud
- Amazon Relational Database Service
- Amazon Simple Storage Service
AWS GovCloud (US) is an isolated AWS region designed to host sensitive data and regulated workloads to help customers support government compliance requirements. Druva runs inSync on Amazon Web Services (AWS). Its infrastructure includes Amazon Elastic Compute Cloud (Amazon EC2), Amazon Relational Database Service (Amazon RDS), and Amazon Simple Storage Service (Amazon S3).

NCI found InSync’s cost point, technical capabilities, and use of AWS infrastructure appealing, and it became the institute’s choice for a backup solution. NCI sponsored Druva through the Federal Risk and Authorization Management Program (FedRamp) process. FedRamp standardizes security assessment, authorization, and continuous monitoring for cloud products and services. Druva had to demonstrate FedRamp compliance before NCI could use its services or products. AWS offers many services that comply with FedRamp, which meant Druva’s reliance on AWS architecture helped with its path to FedRamp compliance.

**Benefits**

Using Druva inSync, NCI has transformed its approach to data loss and recovery. Where once data backup was a hit or miss process, it’s now automated, simplified for users. “We use Druva inSync to back up user files,” says Jeff Shilling, acting chief information officer for NCI. “If the user creates it, we save it.” The inSync icon appears on each user’s desktop. When a user file is lost or corrupted, file recovery is simple and done by the user without involving the NCI IT team at all. If a laptop is lost, damaged, or upgraded, the user receives a replacement machine. Through inSync, user data, preferences, and settings easily transfer to the new device.

For NCI, the improved backup and recovery process is part of a larger strategy. “We don’t want to spend our time and resources managing the complexity of a mobile workforce. We want to take advantage of the cloud to do that instead,” Shilling says. “We see the cloud as a way to fulfill NCI’s mission of improving the care and treatment of cancer patients. Using Druva inSync, NCI has transformed its approach to data loss and recovery, allowing the IT team to instead focus on our organization’s core mission.”

Druva also aids NCI with FOIA requests and forensics tasks. User data is searchable by keyword and does not require physically collecting laptops. This prevents work disruption and any user attempts to alter data. This faster process allows the organization to respond more quickly to oversight requests.

“As an organization, we weren’t cloud-focused. We now see the cloud as a way to fulfill our strategic plan. Working with Druva and guiding them through the FedRamp process was eye-opening for us. We saw the intense engineering behind inSync and how it utilized AWS to empower its service,” says Shilling. “My engineers began to realize that you can build something amazingly sophisticated with these services, and that changed how we look at problems.”

NCI supports hundreds of research areas. “We’re like hundreds of small businesses linked together,” says Shilling. “Research groups come to us and ask, ‘How can we do this project?’ Before using cloud services, our role was setting up infrastructure. Now we serve a more consultative role and can simply spin up cloud services, assure them it’s all built on top of FedRamp, and easily detail the use costs.”

Shiller concludes, “When we talk about digital transformation, that’s what we mean. We’re now a more automated, nimble, agile organization, fully focused on cancer research and training.”

“We see the cloud as a way to fulfill NCI’s mission of improving the care and treatment of cancer patients.”

Jeff Shilling, Acting CIO, National Cancer Institute

To learn more, visit [AWS GovCloud (US)](https://aws.amazon.com/govcloud-us/).