# Transforming Healthcare Systems
# Gart's DevOps Partnership for Success

Gart Solutions

# GART is a dedicated team of professionals passionate about DevOps, Cloud Solutions, and Infrastructure

Gart is your reliable partner who knows all the nuances of technologies and operations and has profound expertise in various client cases and project challenges.
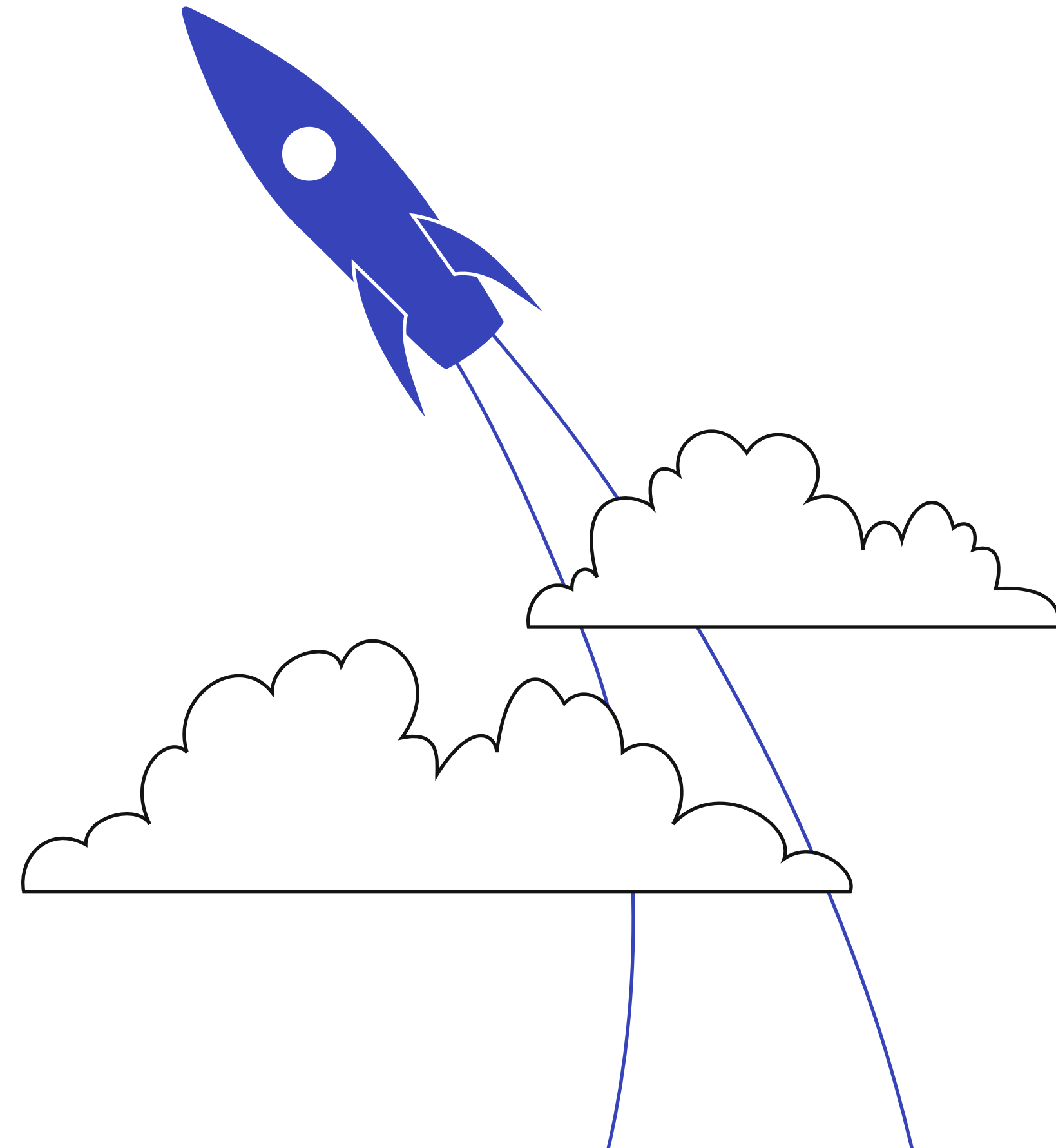
**8,2**
years of average experience

**10+**
Senior & middle level specialists

**50+**
successful projects

**in** Roman Burdiuzha

**Co-Founder & CTO**

**in** Fedir Kompaniiets

**Co-Founder & CEO**

# Optimizing Healthcare Data Integration: A Case Study on Brain.key's Secure MRI and X-ray Analysis

**TECHNOLOGIES USED**

Jenkins    Terraform    HashiCorp Vault

Kubernetes    ELK Stack

**About**

A health tech company that tracks changes in the brain overtime and provides personalized recommendations.

**Project specifics**

The need to manage patients'data (e.g., x-rays, medicalhistory), integrate with medicalinstitutions, and scale dataanalysis capacity quickly.

**Gart's mission on the project**
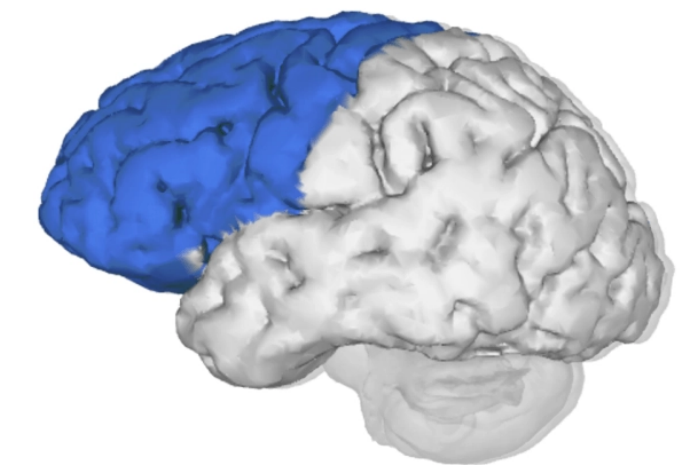
- Manage data in compliance with **HIPAA**

- Facilitate secure **integration** with other networks (e.g., hospitals).

- Design infrastructure **architecture** to withstand peak loads.

# Automating CI/CD and Infrastructure for Enhanced Medical Record Management

### About

A development firm specializing in Electronic Medical Records Software (EMRS) for a government-backed E-Health platform and CRM systems in healthcare facilities, aimed at streamlining patient record management and clinical workflow automation.

### Project specifics

The initiative sought to consolidate medical histories, prescriptions, and insurance data across the nation's medical centers, necessitating the establishment of CI/CD pipelines and infrastructure automation in compliance with HIPAA and GDPR, on designated hardware.

[Read more]

TECHNOLOGIES USED

Docker    Jenkins    Kubernetes

Terraform    VM-Ware ESX

### Gart's mission on the project

- **Compliance Assurance**: Architect systems that align with HIPAA and GDPR standards.

- **On-Premises Infrastructure Development:** Craft an automated, scalable infrastructure solution utilizing VMWare ESXi and Terraform for on-premises deployment.

- **CI/CD Pipeline Integration:** Implement CI/CD pipelines to facilitate efficient, automated software development and deployment processes.

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# Gart's Expertise in ISO 27001 Compliance and Cloud Migration

## About

Spiral Technology, a prominent Boston-based leader in augmented reality for industrial inspections, specializes in integrating augmented reality to optimize inspection processes. With a firm commitment to top-tier security and compliance, Spiral Technology sought expert guidance from Gart in ISO 27001 audits and cloud infrastructure design.

## Project specifics

Gart assisted Spiral Technology in preparing for ISO 27001 audits while launching a significant product, ensuring compliance and migrating seamlessly from Google Cloud Platform (GCP) to Azure.

Read more

TECHNOLOGIES USED

Azure Web Apps    Docker    Docker Containers

**Gart's mission on the project**

- **Ensure ISO 27001 Compliance:** Address over 55 compliance tasks, ensuring adherence to stringent security standards.

- **Seamless Cloud Migration:** Orchestrate migration from GCP to Azure, implementing cloud security measures and optimizing infrastructure.

- **DevOps Consulting:** Align DevOps tasks, enhance security, and streamline operations for improved efficiency.

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# Azure Cost Optimization

**TECHNOLOGIES USED**

Azure    File Share (Azure Storage Account)

AKS (Kubernetes)    Load Balancer (LB)

### About

Appsurify.com, a software development and testing company, faced high Microsoft Azure infrastructure costs and sought optimization solutions from Gart.
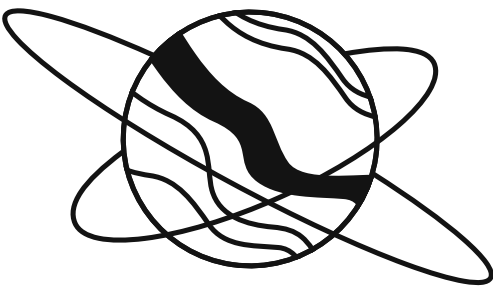
### Gart's mission on the project

### Project Specifics

Gart Solutions identified cost inefficiencies in Appsurify.com's Azure environment, particularly in network traffic costs. By reconfiguring file share settings, we reduced costs by 90%, saving up to $400 daily.
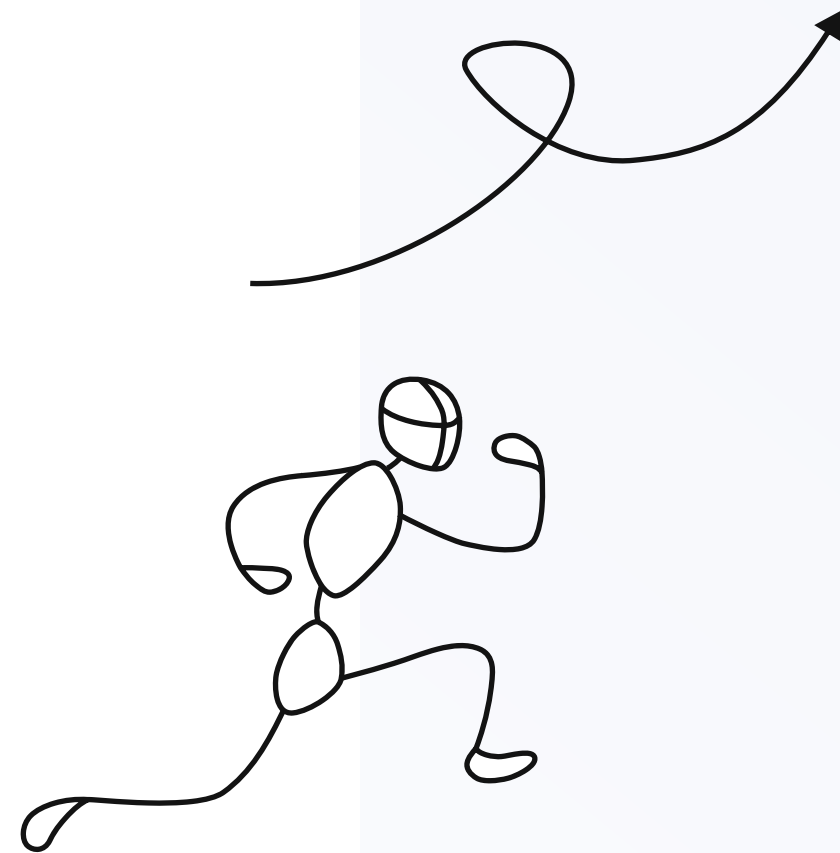
[ Read more ]

- **Cost Optimization:** Analyzed Azure infrastructure to reduce expenses.

- **Technical Consulting:** Collaborated with the client's team to implement tailored solutions.

- **Infrastructure Enhancement:** Provided recommendations to improve performance, security, and reliability.

# Main Challenges Faced by E-Health companies without DevOps

**01** **Regulated Industry**
One of the most regulated industry due to compliance standards (HIPAA, HITECH Act, FDA, CMS, JCAHO, etc)

**02** **Slow Deployment and Releases**
Without DevOps, healthcare organizations often rely on manual and time-consuming deployment processes.

**03** **Reduced Collaboration**
Silos may develop, leading to poor communication and coordination.

**04** **Security Vulnerabilities**
Healthcare companies handle sensitive patient data, making security a top priority.

**05** **Lack of Innovation**
Delayed innovation can result in falling behind in patient care quality and service delivery.

## DevOps Best Practices for e-Health Companies

# Cloud as a Strategy

In the healthcare industry, many critical solutions rely on advanced technology. Therefore, it is imperative to have a secure and adaptable cloud storage system.

Gart helps harness the power of clouds, by offering **Cloud Computing Services** and **Cloud Consulting** to empower you to effortlessly scale the product while minimizing costs.
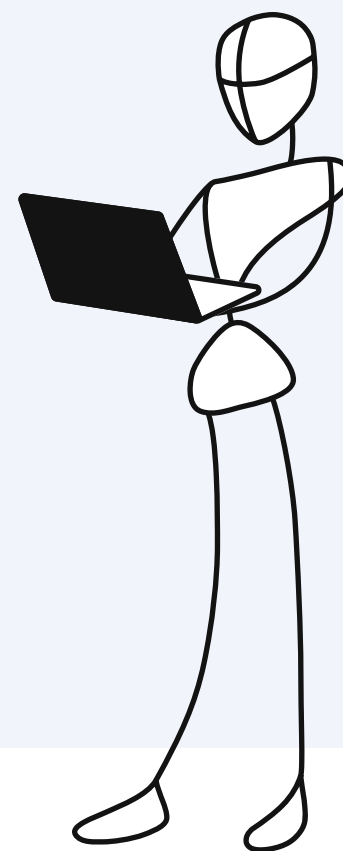
# Serverless Agility

With a serverless architecture, healthcare companies are liberated from the burden of managing servers and infrastructure.

Serverless platforms seamlessly adjust resource scaling according to demand, ensuring your SaaS application effortlessly adapts to varying user activity levels without the need for manual interventions. You focus on coding, while the cloud does the rest, significantly simplifying operations.

Start with **Free Consultation**

## DevOps Best Practices for e-Health Companies

# Infrastructure as Code (IaC)

Gart's Infrastructure services are oriented on building Infrastructure as Code, which allows the adoption of Agile practices throughout the organization and eliminates human error and manual processes.

This acceleration allows faster and more reliable releases, reducing time-to-market for new features.
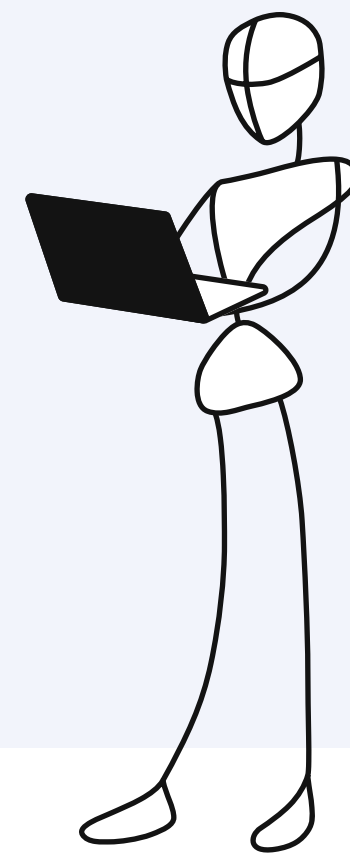
# Encryption & Data Masking

Utilize strong encryption algorithms to protect sensitive healthcare data when it is stored (at rest) and when it is transmitted (in transit). This ensures that even if unauthorized access occurs, the data remains unreadable and secure.

Additionally, implement data masking in non-production environments to protect patient data during development and testing, aligning with stringent healthcare data security requirements.

These methods allow for the realistic testing and development of applications without exposing actual patient data. Sensitive elements within the data are replaced with fictional or masked values, preserving data privacy and HIPAA compliance.

## DevOps Best Practices for e-Health Companies

# Data Backup and Recovery

Gart will help implement regular **data backup and disaster recovery** plans to ensure data availability and integrity. We will also test data recovery procedures to ensure they comply with HIPAA requirements.

# Automation & CI/CD Practices

We focus on building **Continuous Integration (CI) and Continuous delivery (CD)** as core DevOps best practices.

CI allows the merge of code changes as needed and uses automated tools to validate code correctness, and CD helps with constant delivery into a production environment.
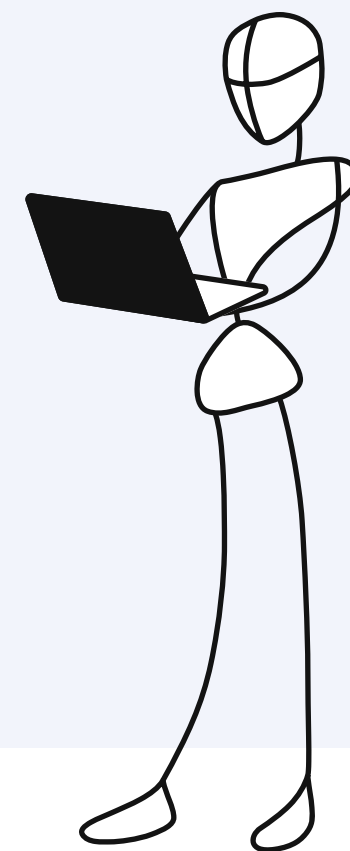
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# What our customers said

## Clutch

See us on [Clutch](Clutch)

### THE REVIEW

"We were amazed by their ability to adapt to our evolving needs."

JUL 12, 2022

5.0 ★★★★★

| | |
|---|---|
| Quality: | 5.0 |
| Schedule: | 5.0 |
| Cost: | 4.0 |
| Willing to refer: | 5.0 |

**Feedback summary:**

The gart team delivered excellent solutions that were used in the company's production process. They integrated quickly into the internal team, leading to a highly effective workflow. They collaborated and presented solutions impressively.

**Development**

### THE REVIEW

"The team was clear in communication and open to receiving feedback."

DEC 8, 2022

5.0 ★★★★★

| | |
|---|---|
| Quality: | 5.0 |
| Schedule: | 5.0 |
| Cost: | 5.0 |
| Willing to refer: | 5.0 |

**Feedback summary:**

Gart completed migrating the applications, automating infrastructure provisioning, and setting up governance for the new infrastructure as scheduled. Their team was professional, receptive to feedback, and had excellent technical experience. They continued to support the client with Microsoft Azure.

**Managed IT Services, Cloud Consulting**

### THE REVIEW

"The team's task-focused deliveries, regardless of work-hour scope, were impressive."

AUG 3, 2022

5.0 ★★★★★

| | |
|---|---|
| Quality: | 5.0 |
| Schedule: | 5.0 |
| Cost: | 5.0 |
| Willing to refer: | 5.0 |

**Feedback summary:**

Thanks to gart's efforts, they successfully processed the client's job duplication. The team communicated well and managed the workflow well. Their task-oriented delivery stood out in the partnership.

**Staff Augmentation**

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# Contact Us

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