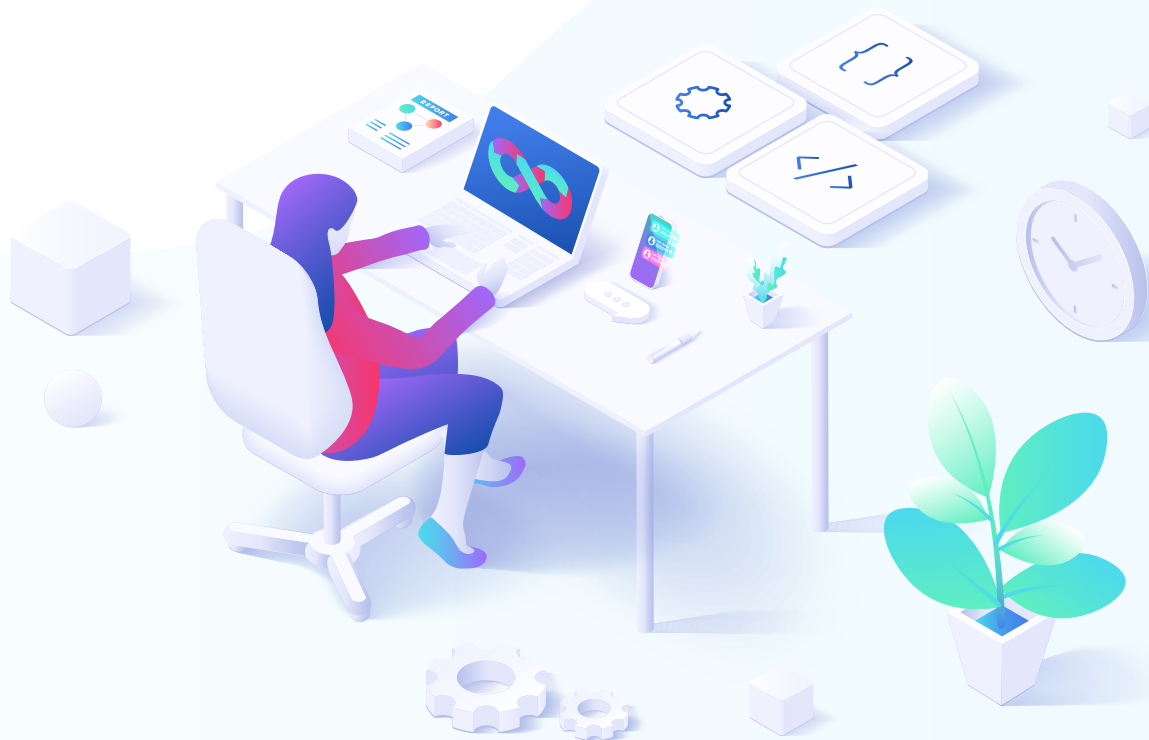


Your End-to-End

DevOps

Transformation Partner



GAVS' DevOps Service Objectives

Traditional business models rely on outdated processes for software development, deployment, and IT operations, and have the teams working in silos & out of sync with each other, resulting in a lot of friction between them. This traditional approach can deter a company's ability to keep up with consumer demands. Faster time to market is critical for most enterprises, and technology needs to fuel that need by leveraging lean principles, new age innovative solutions, and rapid product releases.

DevOps is one such approach based on lean and agile principles, that emphasizes close interactions between business stakeholders, software developers, IT operations & quality assurance personnel. DevOps aims to deliver products and services in a continuous flow, that would enable businesses to seize market opportunities.

GAVS methodology for DevOps aims at developing a holistic technology-led solution focused on streamlining processes in a way that would bridge the gap between the different stakeholders. GAVS DevOps service offers comprehensive tools and guidance that you would need to implement an effective DevOps discipline. The solutions and frameworks are based on performing gap analysis, defining processes and tools, implementing Continuous Integration/Continuous Delivery (CI/CD), continuous testing and environment provisioning.

Highlights of GAVS' DevOps Engagements

- 40% faster deployment of software packages at a large aircraft manufacturer, by leveraging GAVS' DevOps tool chain
- One-click fully automated deployment with zero manual intervention for a health Insurance company
- 30% faster release cycles of new products, 60% reduction in IT costs for world's largest publisher
- Improved time to market ratio of 3:1, reduction in IT spend by 45%, 70% increase in system scalability for a large managed care consortium
- Reduced IT operations costs of 20%, significantly faster deployments for a leading FMCG company in APAC, by implementing DevOps tool chain in Azure

DevOps Trends



Improved Software Deployment Quality

Organizations that have included DevOps practices in their SDLC are experiencing a 60%+ improvement in the quality of their software deployments



Increase in DevOps Adoption

The adoption of DevOps practices rose 17% in 2018, as compared to 10% in 2017



Greater Agility

The build, test, and deploy components of DevOps will gain top priority in 2020 & beyond



DevOps fueled by Microservices

Microservices and DevOps will team up to deliver greater agility and operational efficiency for the enterprise



AI in DevOps

AI and machine learning will speed up DevOps quality analysis. Infrastructure automation will get a lot smarter, with more of AI and ML



Value Stream Management

DevOps will continue to improve and be hyper-focused on value streams, value stream management, and product-centricity



DevOps with Software Intelligence

We will see DevOps teams applying software intelligence capabilities, and integrating them into DevOps toolchains for regular, comprehensive structural checks



Delivery Speed

Several organizations will opt to go down the Agile and DevOps paths to improve their speed of delivery

GAVS' DevOps Service Offering

GAVS provides a broad range of DevOps services to enable successful adoption of the DevOps practice in an organization, underpinned by an integrated tooling environment for continuous testing and code release. All the service models and offerings are designed to help organizations launch/re-launch/optimize their DevOps architectures and operating models.



Quick burst DevOps Assessment Service

GAVS' DevOps jumpstart assessment will focus on the people, processes, and technologies that will be needed to facilitate a culture of rapid release, stability, and issue management - Assessment of key functional areas comparing 'as-is' states to the 'to-be' states, Maturity heat mapping for quick reference, and Transformation roadmap.

Service Enablers

GAVS' services draw heavily from our own unique IP, to accelerate and de-risk the delivery of your solution. This includes frameworks and accelerators developed through use of our own proprietary technology, and from knowledge gained from diverse deployments.

DevOps Integration & Automation Services

These will provide a complete range of DevOps tools, capabilities, and expertise to enable quick adoption of DevOps methodologies to solve a large variety of problems - cloud migrations, CI/CD, fully automated testing and deployments, with best-in-class DevOps, cloud and security practices.

Service Enablers

- Modular, repeatable delivery framework through GAVS' Automation Factory
- Best practices for application and cloud lifecycle management
- Fully automated testing and CI/CD implementation using GAVS' Test Automation tool
- Fully automated end-to-end immutable deployments

Continuous Integration

- Setup of CI processes & tools
- Building Automation
- Repository Management
- Version Control Migration

Continuous Deployment

- Automated deployment of application artefacts/configurations to the environments across the SDLC

Continuous Testing

Building the foll. into the CI/CD pipeline

- Functional testing
- Non-Functional testing
- System Integration testing
- User Acceptance testing

DevOps Environment Management Services

GAVS offers creation and management of a secure delivery platform with automated provisioning and management across multi-cloud environments. This is done using our dynamic, industry-leading DevOps and DevSecOps tailored open source toolchains, backed by process and role changes that dramatically reduce DevOps cycle times while improving delivery outcomes.

Service Enablers

- Automated orchestration and provisioning of infrastructure through Infrastructure-as-Code (Terraform infra provisioning, for instance) and DevOps methodologies
- On-demand environment provisioning using homegrown product zlrus – a cloud orchestration platform

Solution Accelerators

With the GAVS DevOps Platform (GDP) you can leverage technology to achieve business goals at the required speed, improve business outcomes by shortening the software development lifecycle, and adapt quickly to market needs/trends. GDP is a cloud-based platform for continuous development, testing, and releasing of code that can be provisioned with the click of a button. GDP is a blueprint for DevOps/Continuous Delivery concepts, principles, and best technical practices.

GDP can be used to automatically create a fully functional tooling and application stack in the cloud, with tools for ALM, code review, CI, automated testing, and deployments. It can be used to support development with any technology and comes with continuous delivery pipelines configured for Java and Hybris. This will greatly help reduce defects early on, automate repetitive tasks, increase code quality, and increase collaboration via transparency.

Core Tools of the GDP Platform

zlrus

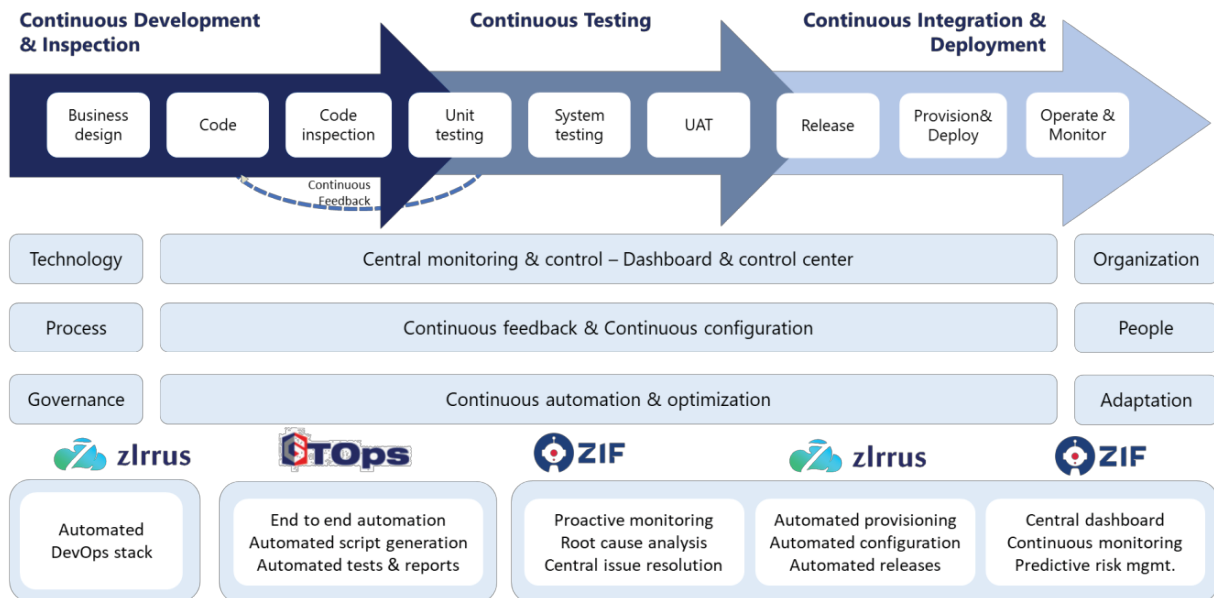
Homegrown open source based Automated DevOps Cloud Orchestration Platform, for Continuous Integration & Continuous Delivery.

GAVS Test Operations (GTOps)

GAVS' proprietary Test Automation Framework. Enables shift left, integration of test automation with the build and deployment processes, automated regression and quality checks that drastically reduce manual effort.

Zero Incident Framework™ (ZIF)

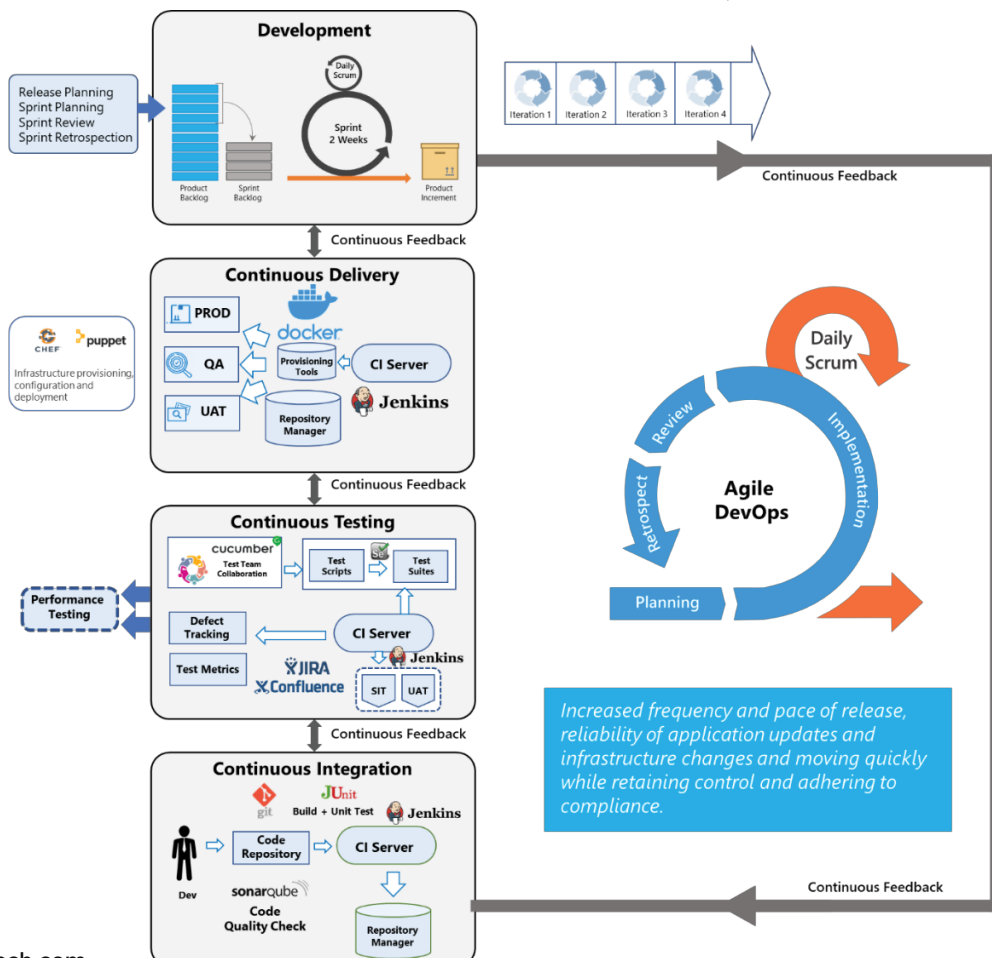
AIOps based Infrastructure Management Platform with Discover, Monitor, Analyze, Predict & Remediate features capable of auto-discovering infra assets and applications, uncovering dependencies, end-to-end monitoring of infrastructure components and applications, correlating alerts & reducing noise, generating predictive insights, and self-healing.



Continuous Integration/Continuous Deployment (CI/CD)

The enhanced DevOps process requires maximum automation of all parts of the process - from user requirements gathering, to continuous development, continuous build, continuous deployment, and continuous monitoring.

The more the automation, better the benefits from DevOps. GDP zlruss platform uses Jira, Confluence, Chef, Git, Selenium Grid, Elasticsearch, OWASP ZAP, Logstash, Jenkins, Kibana, Gerrit, Docker, Cucumber, Ansible, SonarQube, Sensu, and SoapUI for CI/CD. Many other tools/technologies can also be used in GDP - Puppet, Terraform, PaaS, to name a few.



Primary Features

- Continuous & comprehensive code quality inspection at multiple stages
- CI tightly integrated with the release pipeline
- Code coverage metric tracking
- Automated builds
- Automated deployments

Extended Features

- Maximum reuse of existing tools
- Automated provisioning across multiple, hybrid environments
- Automated configuration
- Completely automated release cycles using zIrrus
- Single dashboard to monitor & control entire release cycle

Test Automation with GTOps

Continuous testing is the process of repetitive testing of a product through execution of automated tests, starting from build creation to system testing, and finally till product release.

GAVS GTOps testing services include end-to-end test automation practices which are intended to integrate QA into existing fast-paced Dev and Ops processes, to create continuity while maintaining faster development cycles.

Primary Features

- Unit test cases for applications
- Integration with Junit and Ant as applicable
- Integration of unit testing with Bamboo
- Service level test automation
- Test reports: code analysis report, code coverage report, automation test report etc.

Extended Features

- Code reusability
- Auto generation of test scripts as the code grows
- Technology agnostic unified automation
- Parallel execution on multiple machines
- Job scheduling & report generation

Cloud-based Environment Provisioning - Infrastructure as Code (IaS)

GAVS' solutions extensively use technology levers such as Automation, Analytics, Virtualization, Software-defined Environments, and Elastic Cloud models which can significantly reduce time taken to deploy even large-scale, complex infrastructure solutions. GAVS has built frameworks and automation tools for managing Infrastructure as Code.

These automation tools are a combination of application and middleware-centric tools capable of managing both application servers and the applications that run on them as code, and generic automation tools to cover a wide range of needs from say configuring an OS on a virtual or physical node, to configuring firewall ports.

Primary Features

- Hybrid cloud management, controlled resource allocation, self-service provisioning
- Base server build, addition/removal from domain
- Application package installation
- Policy updation, CIS standards execution

Extended Features

- Auto discovery features
- Self-healing on failure
- Data & application migration to hybrid cloud
- Auto scaling & event-driven workflows
- Assignment & management of privileges

AIOps-based Infrastructure Monitoring & Management

Over the years GAVS has invested a huge amount of resources and time in developing various patented AI Machine Learning algorithms to enable auto-discovery, agentless application & infra monitoring, tech bots for process automation, remediation, and orchestration capabilities to form Zero Incident Framework™(ZIF).

The ZIF framework aligns with the Gartner AIOps strategy. ZIF can integrate with existing monitoring and ITSM tools, or function independently to manage IT operations with the power of AI.

Primary Features

- Auto discovery & topology mapping
- Event aggregation & correlation
- Unified view/dashboard
- Application performance management
- Integration with ITSM and monitoring tools

Extended Features

- DB & transaction monitoring
- Noise reduction
- Root cause analysis
- AIOps & predictive analytics
- Volume & performance forecasting
- Automation workflows

Success Stories

The Largest Manufacturing Company in the World

Automated Deployment using Cloud Orchestration

- A wide range of system engineering initiatives driven by various commercial DevOps stacks and zIrrus
- Complete re-design & re-engineering of a two decade old platform developed using Fortran & Cobol, having over 2.5M LoCs & legacy databases, by leveraging DevOps principles
- On demand environment provisioning, as part of cloud migration program for high availability

25%

faster time-to-market through faster release & deployment of applications/products

35%

cost savings by adopting lean DevOps principles, with near-zero errors

Digital Transformation Partner for Large Healthcare Organization

Automated Deployment Pipeline using DevOps

- Acceleration of customer processes to deliver next-gen healthcare, through optimal use of every tool in their arsenal to lower costs and improve business outcomes
- Significant enhancement of UX by modernizing products, and rationalizing the infrastructure

~40%

cost savings through tools consolidation, and application rationalization

Defect-free products, backed by planned, faster releases

A Global Leader in Medical and Pharmaceutical Waste Management

- DevOps tool chain to automate code deployment through TFS & Octopus
- Single-click workload provisioning
- Direct deployment to appropriate websites using DevOps tools
- Automated validations executed using QA automation builds created in TFS

20%

cost reduction through DevOps adoption

Reduced manual work and errors due to enhanced test automation

Product release time reduced by ~30% by leveraging CI/CD DevOps tool chain

ZIF™, Zero Incident Framework™, and Zero Incident Enterprise™ are registered trademarks of GAVS Technologies.

GAVS

GAVS Technologies is focused on automation-led digital transformation services. GAVS' IP led solution, Zero Incident Framework™ is an AIOps solution that enables organizations to trend towards a Zero Incident Enterprise™.

For more information on how GAVS can help solve your business problems, write to inquiry@gavstech.com

www.gavstech.com