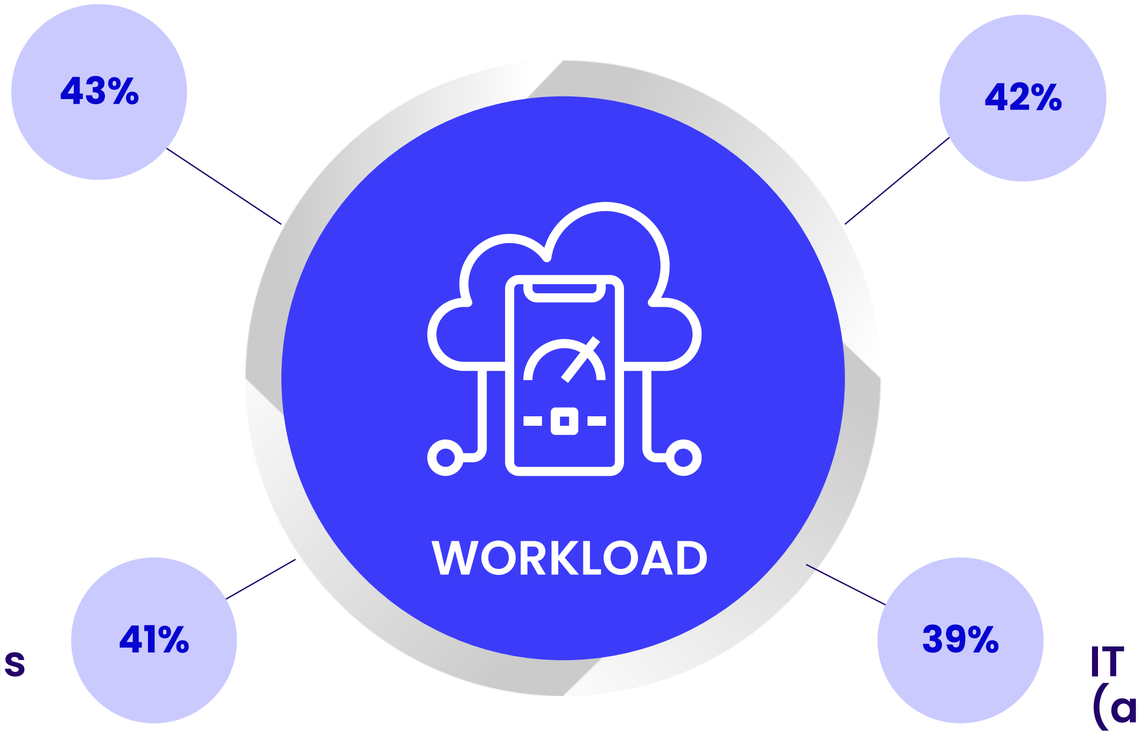
Infopercept

Your Ally in Digital Warfare

Managed Cloud Security

Technical -Approach

Cloud Market Growth



Storage
(object storage,
archive, backup etc.)

Business applications
(CRM, marketing
automation ERP, BI, project
management etc.)

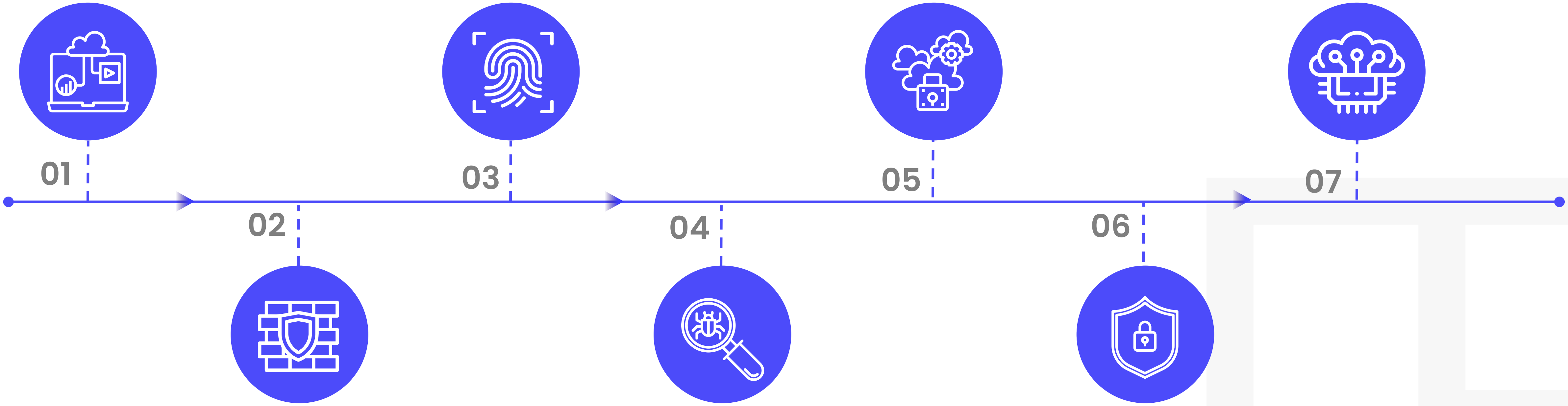
Productivity applications
(email, collaboration,
instant messaging etc.)

IT operations applications
(administration, backup,
provisioning monitoring etc.)

Cloud Security Challenges

- Lack of knowledge of cloud compliance
- Lack of visibility in cloud Security
- misconfigurations of cloud services
- Insecure interfaces
- Improper access controls
- Unauthorized Access
- Data Loss & Data Leakage

Cloud Security Services Delivered by Infopercept



01 Security Event and log monitoring for AWS, Azure and GCP using SIEM

02 Web Application Firewall Management against OWASP Top threats

03 Identity and Access Management provisioning for Users and Applications

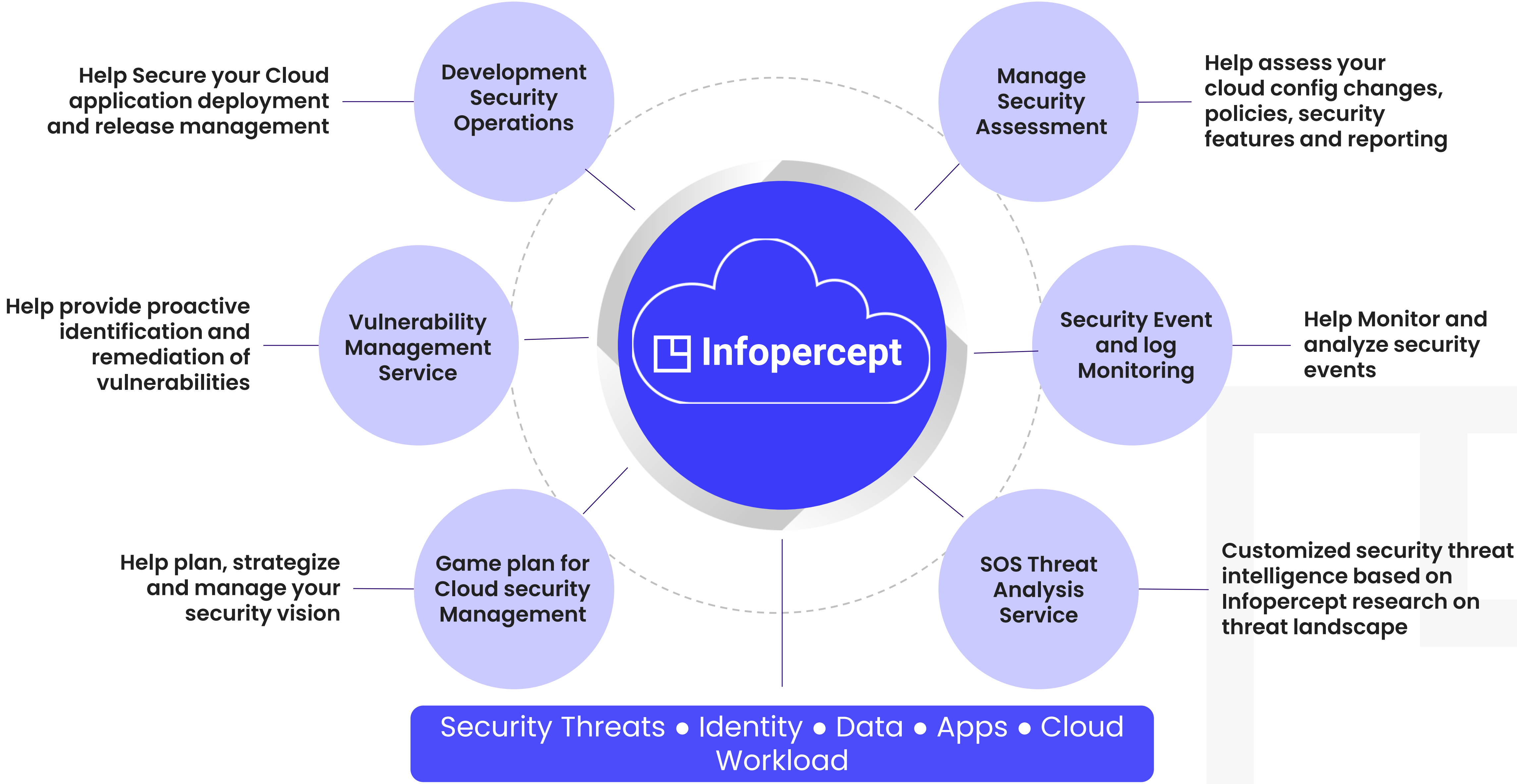
04 Vulnerability discovery, analysis and remediation recommendations

05 Application Security assessment using Static and Dynamic Analysis

06 Infopercept Kubernetes Security Services

07 Cloud Security Automation

Infopercept Security Services from the Cloud



Help Secure your Cloud application deployment and release management

Development Security Operations

Manage Security Assessment

Help assess your cloud config changes, policies, security features and reporting

Help provide proactive identification and remediation of vulnerabilities

Vulnerability Management Service

Security Event and log Monitoring

Help Monitor and analyze security events

Help plan, strategize and manage your security vision

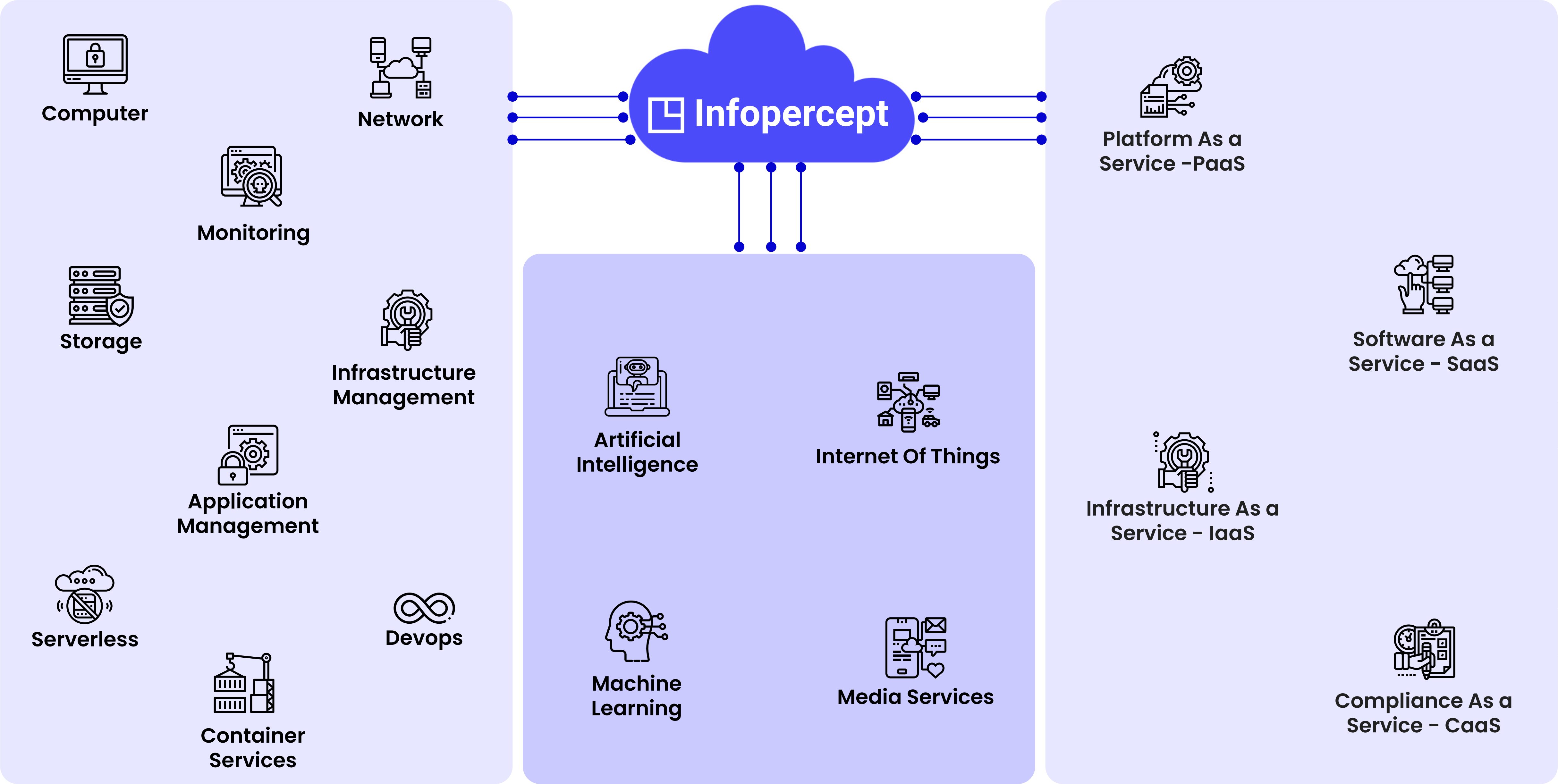
Game plan for Cloud security Management

SOS Threat Analysis Service

Customized security threat intelligence based on Infopercept research on threat landscape

Security Threats • Identity • Data • Apps • Cloud Workload

Elements of Cloud Environment



Infopercept

Computer

Network

Monitoring

Storage

Infrastructure Management

Application Management

Serverless

Devops

Container Services

Artificial Intelligence

Internet Of Things

Machine Learning

Media Services

Platform As a Service -PaaS

Software As a Service - SaaS

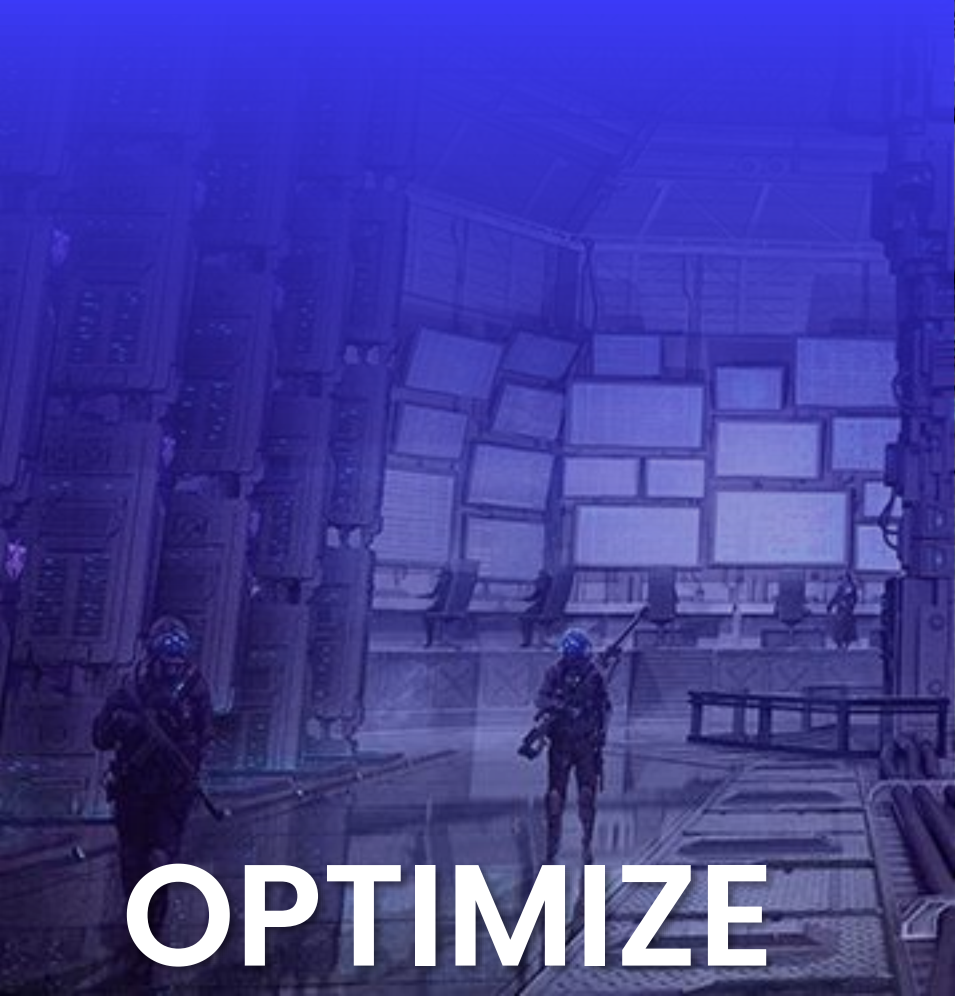
Infrastructure As a Service - IaaS

Compliance As a Service - CaaS

Managed Cloud Security Model

- Cloud Architecture Security Assessment
- Web Application Firewall
- Hosted application Security
- Identity Based Security
- Encryption of storage
- Network Security
- IPS/IDS
- Best Practices Architecture

Managed Cloud Security Model



OPTIMIZE

- DR Setup
- DevSecOps
- Audit Ready Compliance Cloud Architecture
- Deep Analysis
- Continuous Patch Management
- Continuous Asset Management
- Monitoring & Alerts

Managed Cloud Security Model

- Virtual Security Operations Centre
- Automation in a Security
- Automation Remediation

Approach to data security in the Cloud

Understand, define policy

- Discover where sensitive data resides
- Classify and define data types
- Define policies and metrics

Secure and protect

- Encrypt, redact and mask virtualized databases
- De-identify confidential data in non-production environments

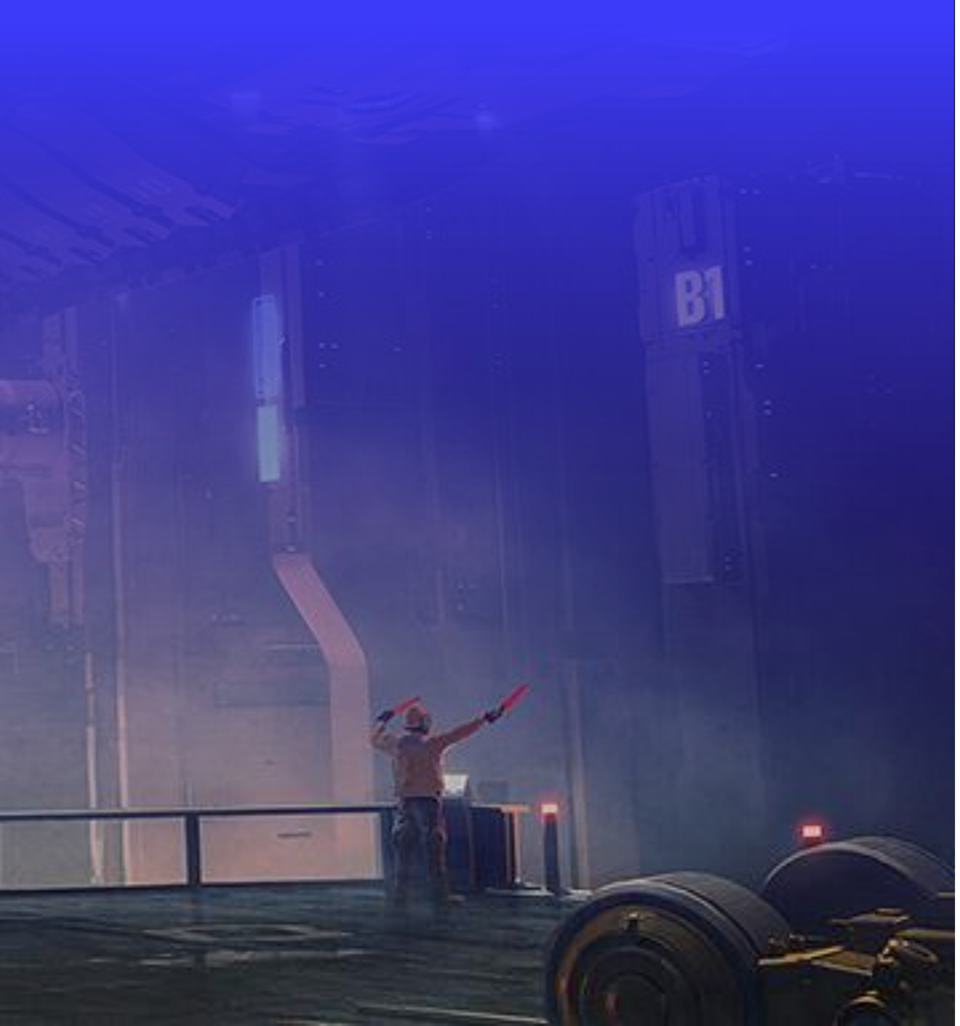
Actively monitor and audit

- Monitor virtualized databases and enforce review of policy exceptions
- Automate and centralize the controlsneeded for auditing and compliance (e.g., SOX, PCI)
- Assess database vulnerabilities

Establish compliance and security intelligence

- Automate reporting customized for different regulations to demonstrate compliance in the Cloud
- Integrate data activity monitoring with security
- information and event management (SIEM)

Managed Cloud Security Priorities

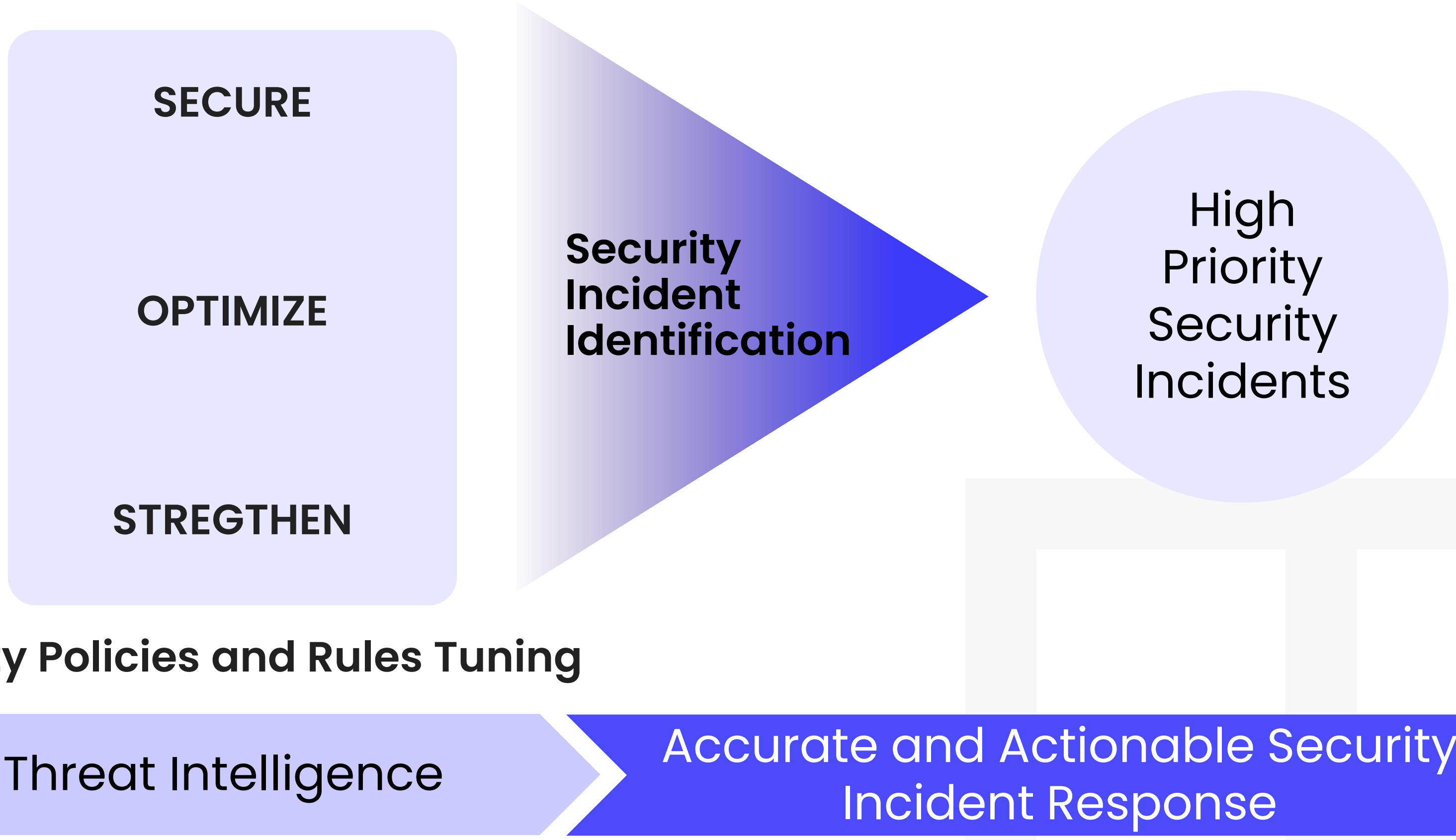


- Define Strategy Framework
- Asses the cloud based risk
- Follow Cloud Best practices with scenario
- Defending against Malwares
- Reaching regulatory compliance
- Securing Cloud Apps in use
- Preventing Cloud mis-configurations
- SecDevops
- Continuous Monitoring & evaluation of Security

Integrating Security across IT Silos

Security Event Correlation

- Security Devices
- Servers & Hosts
- Network & Virtual Activity
- Database Activity
- Application Activity
- Configuration Info
- Vulnerability Info
- User Activity

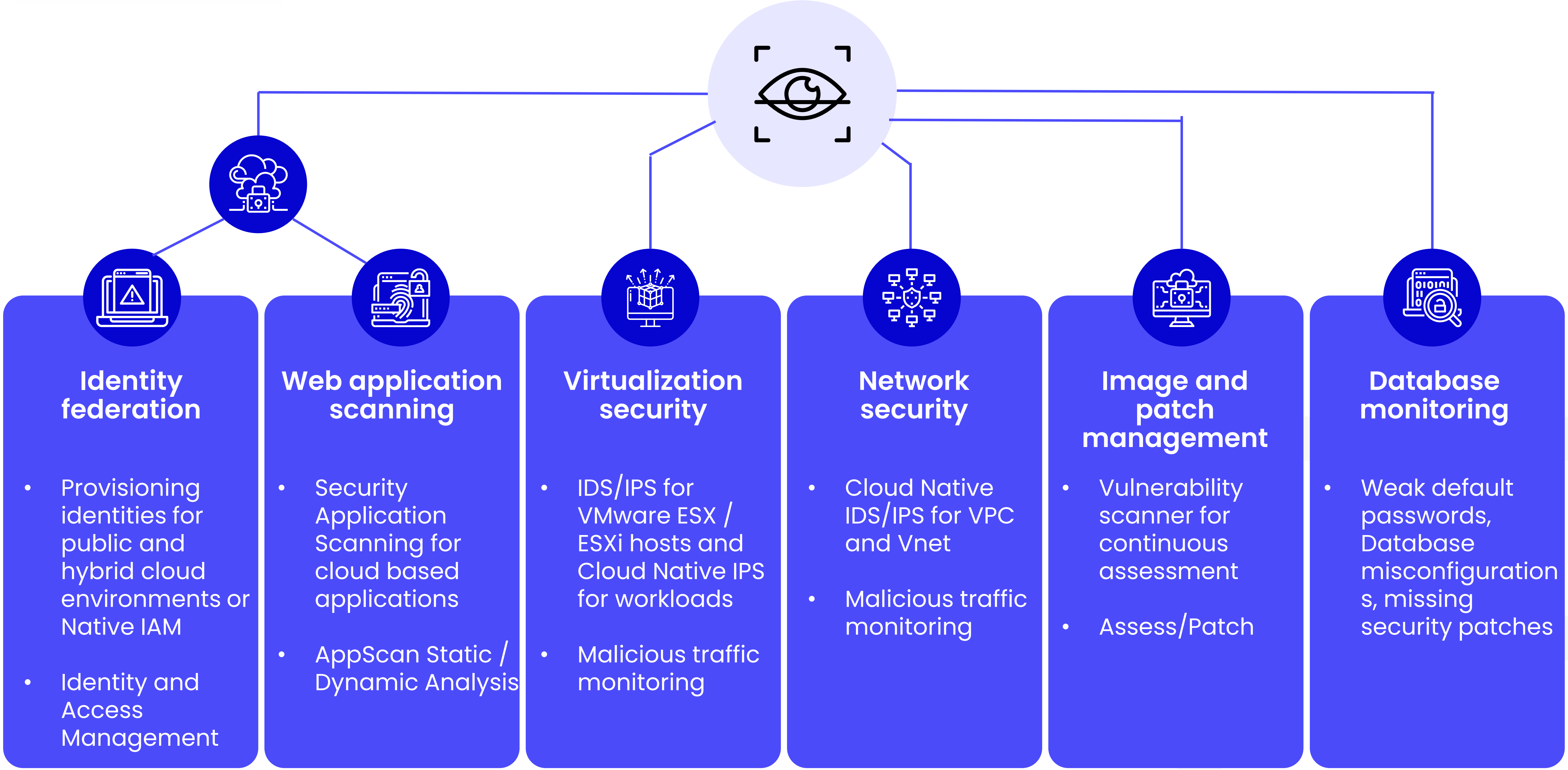

SECURE
OPTIMIZE
STREGTHEN
Security Incident Identification
High Priority Security Incidents
Diverse Data Sources
Threat Intelligence
Accurate and Actionable Security Incident Response

Security Policies and Rules Tuning

- Detecting real time threats
- Consolidating data silos
- Detecting insider fraud

- Predicting risks against your business
- Addressing regulatory mandates

SIEM Security Event Monitoring



Identity federation

- Provisioning identities for public and hybrid cloud environments or Native IAM
- Identity and Access Management

Web application scanning

- Security Application Scanning for cloud based applications
- AppScan Static / Dynamic Analysis

Virtualization security

- IDS/IPS for VMware ESX / ESXi hosts and Cloud Native IPS for workloads
- Malicious traffic monitoring

Network security

- Cloud Native IDS/IPS for VPC and Vnet
- Malicious traffic monitoring

Image and patch management

- Vulnerability scanner for continuous assessment
- Assess/Patch

Database monitoring

- Weak default passwords, Database misconfigurations, missing security patches

Application Security Vision

Infopercept

Audience	Development Teams		Security Teams		Penetration Testers
SDLC	Coding	Build	QA	Security	Production
Scanning Techniques	Dynamic analysis				black box
	Static analysis				White box
Applications	Programming Languages		Web Applications and Services		Mobile Applications
Governance & Collaboration	• Test policies, test templates and access control • Dashboards, detailed reports & trending • Manage regulatory requirements such as PCI, GLBA and HIPAA (40 + out-of-the-box compliance reports)				
Integrated	Build Systems improve scan efficiencies	Defect Tracking system track remediation		Development Environments Remediation assistance	Security intelligence raise threat level

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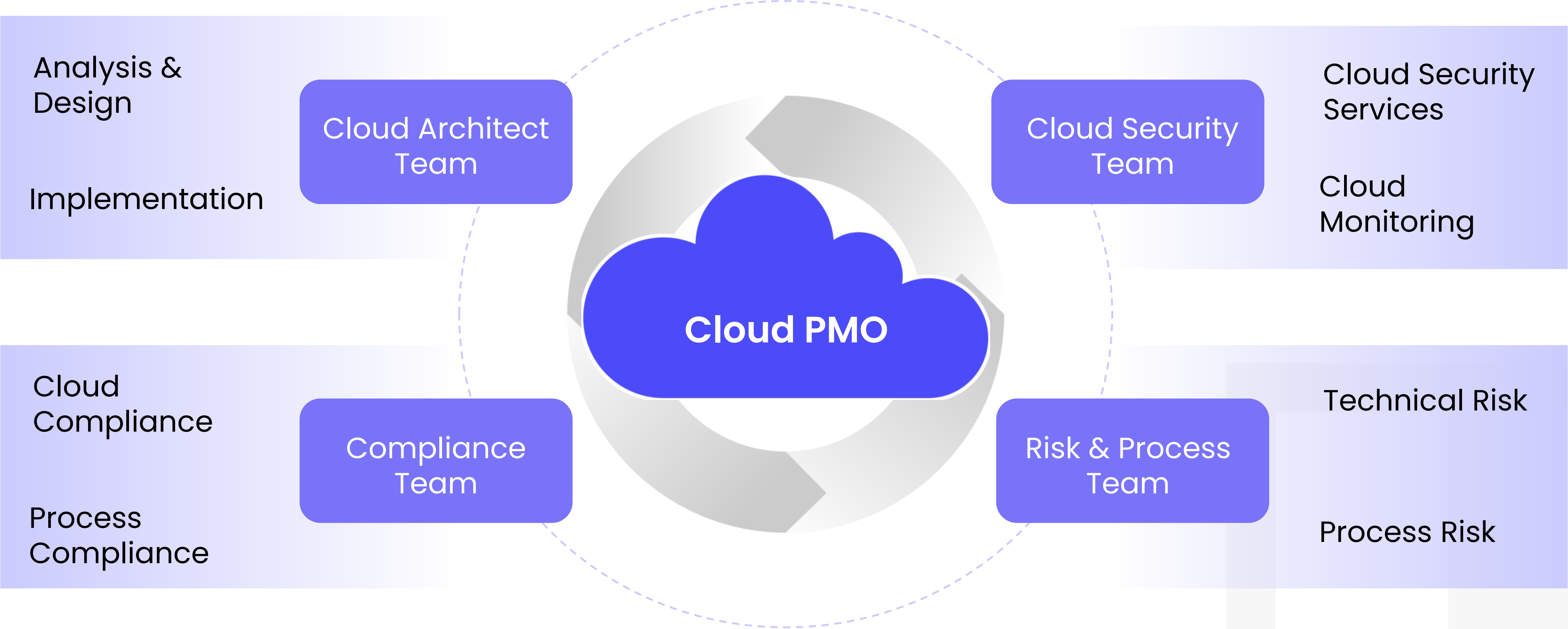
Cloud PMO



Analysis & Design

Implementation

Cloud Architect Team

Cloud Security Team

Cloud Security Services

Cloud Monitoring

Cloud PMO

Cloud Compliance

Process Compliance

Compliance Team

Risk & Process Team

Technical Risk

Process Risk

Cloud Security Assessments - AWS, Azure, GCP Etc..

Infopercept provides cloud security assessments from AWS, Azure, and Google Cloud Platform. We use automated tools, manual verification, and expert analysis to determine gaps that exist in your cloud security configuration. We can also assess web applications running in the cloud that may have vulnerabilities that could lead to infiltration and pivoting within your cloud environment. If desired, we can evaluate your development and deployment processes, CICD pipeline, and overall architecture of your cloud and hybrid cloud infrastructure.

SCOPE

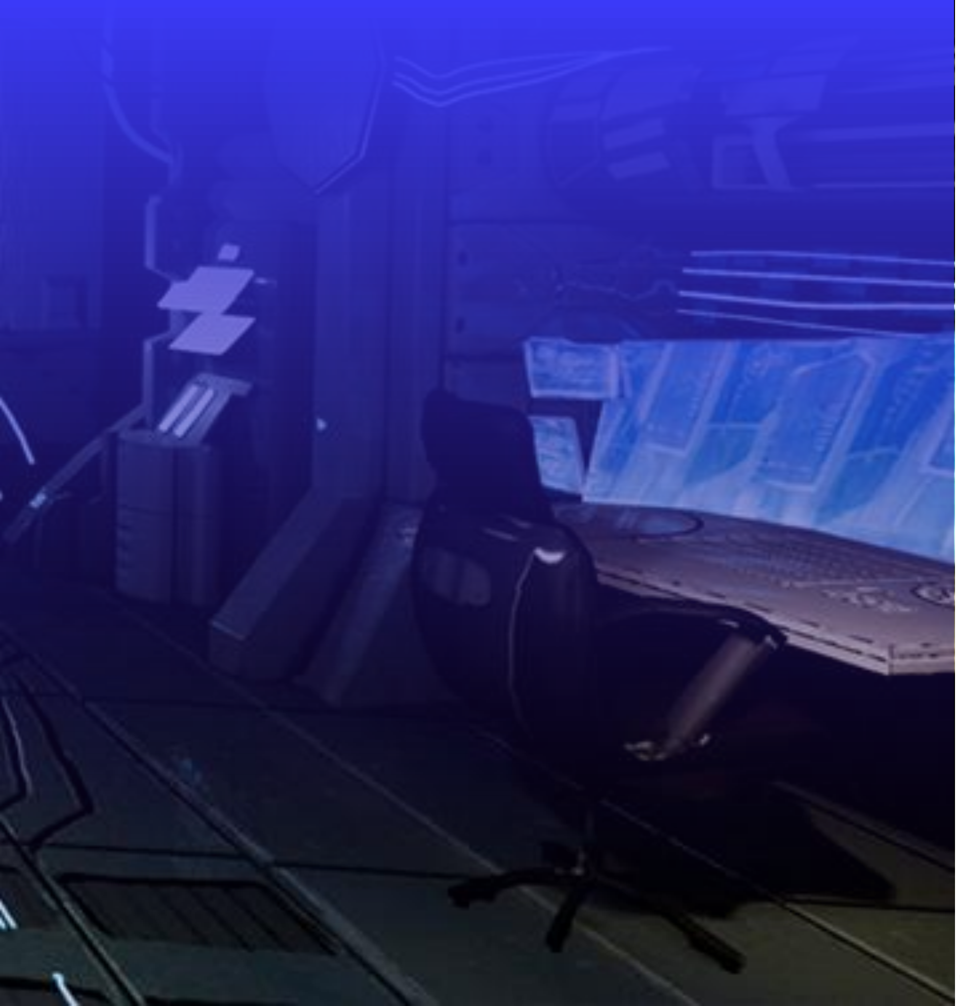
We perform the following activities during an assessment of your AWS, Azure, or GCP account:

- Run automated scanning tools to assess the account
- Manually validate assessment findings in AWS, Azure, or GCP
- Assessments may include some reverse engineering and limited code review
- Cloud architecture reviews are also available upon request
- Staff interviews and documentation review, if available

Engagement

- We perform testing at a mutually agreeable time with the client
- The testing period is a defined period with a start and end date
- We perform tests from an AWS region; customers must provide network access
- Rate limiting needs to be turned off to perform application vulnerability scans and testing.
- Contacts must be available who can help restore access as needed.
- We report in as desired by the client.
- We require C-Level executive approval for automated scanning.
- Customers need to provide appropriate credentials and respond in a timely manner.

Cloud Penetration Testing



How We Pentest your AWS, Azure, or GCP Account

At Infopercept, we focus on helping you improve security - not just finding some obscure way to attack your systems. We do more than use a tool to scan your systems and generate an automated report. We do leverage tools and automation and have a set process for performing penetration tests on cloud accounts. By using the same approach each time, we can dive deeper faster and provide more value. We execute a combination of assessment and penetration activities to determine the overall security of your account and the applications running in it. We provide analysis of each finding to offer mitigation steps your team can use to fix the problem and additional resources for those who want to dive deeper.

SCOPE

We perform the following activities during a pentest of your AWS, Azure, or GCP account:

- Web application testing to see if vulnerable applications provider access.
- Assess cloud configuration in AWS, Azure, or GCP.
- Tests include some reverse engineering and limited code review
- Cloud architecture reviews are also available upon request and will require system documentation
- We perform fuzzing for maximum coverage since the time for
- testing is limited

Engagement

- Tests are performed part-time at random times over 3 to 4-week period
- The testing period is a defined period with a start and end date
- We perform tests from an AWS region, and network access must be available
- We test in non-production environments and can verify in production
- Rate limiting needs to be turned off for fuzzing to work
- Contacts must be available who can help restore access as needed
- We report in as desired by the client
- We require the approval of a C-Level executive to perform the test
- Customers need to provide appropriate credentials and respond in a timely manner

Cloud Penetration Testing Process

The cloud penetration process is different due to dynamic nature ephemeral resources and limitations on certain types of testing. Testers must understand cloud technologies and cloud provider-specific requirements related to scope. We request cloud credentials with a specific role and domain names, URLs, and an AWS account number instead of IP addresses. We test from dynamic IP addresses in an AWS region. We help customers understand the process further in the setup phase of the penetration test. We aim for coverage over stealth.

High-level penetration testing steps:

- Define scope and rules of engagement with the customer
- Set up and Reconnaissance
- Scan web applications, network, and cloud account
- Exploitation
- Validation of findings by various tools
- Report Writing and Delivery

Penetration Testing Report

Our reports include high-level and detailed prioritized findings, steps to reproduce, recommended remediation, and additional resources related to each finding

Cloud Penetration Testing Process

Kubernetes Services

- Aqua Security
- Capsule8
- Cavirin
- Google SCC
- Layered Insight (Qualys)
- Neuvector
- StackRox
- Sysdig Secure
- Tenable Container Security
- Twistlock (Palo Alto)

Recommended Security platform for Kubernetes

- Kubernetes image scanning and static analysis
- Kubernetes runtime security
- Kubernetes network security
- Image distribution and secrets management
- Kubernetes security audit

Cloud Security Model

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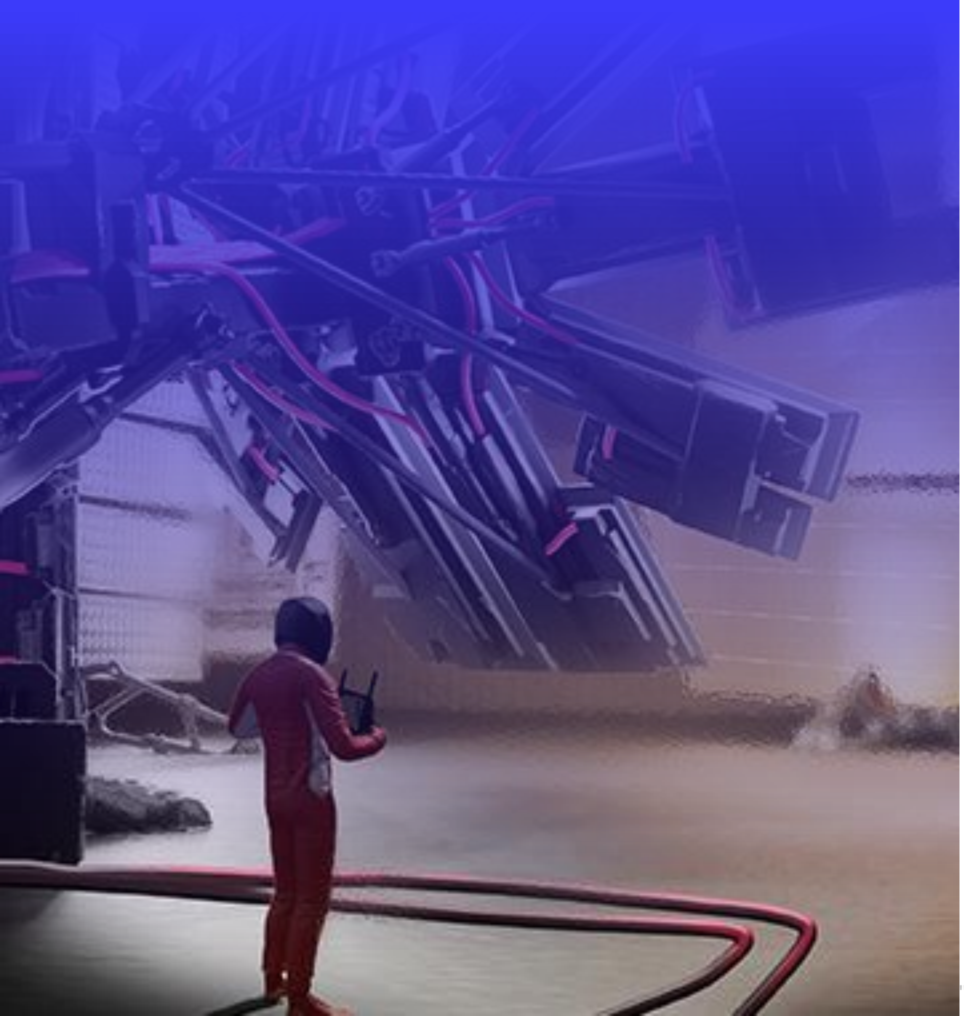

Cloud Continuous Security Solution by integrating below points

- Write custom rules & remediation action
- Integration with change management
- Integrating with security automation tools
- Integration with end to end vulnerability remediation tools

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About Infopercept

Infopercept

Infopercept's vision and core values revolve around making organizations more secure through the core values of Honesty, Transparency and Knowledge, so as to enable them to make better informed decisions about their security practices & goals. With our synergistic vision to combine technical expertise and professional experience, we aim to further establish our place as a one stop shop for our clients and partners' cybersecurity and accreditation needs.

Our specialized core team comprises experienced veterans, technical experts & security enthusiasts having good practical experience & thorough knowledge in the Cybersecurity domain, latest trends, and security innovations; ensuring that you always get the best security approach & solution for your specific business needs exactly the way you want it to be.

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