

# CASE STUDY

## Case Study of Kubernetes environment Security Assessment

IN DUBAI, MIDDLE EAST

# Net Square at a glance:



- Net Square has set itself the mission to be the partner of choice for Organizations that seek deep insights into the Network and Application Security. To address this challenge, Net Square has built great depth in both these key areas of Information Security.
- Our thoroughly researched methodologies and our knowledge of the latest attack vectors help us in providing our clients insights into the gaps in the security posture and the possible business risks the organization is exposed to.
- Net Square delivers this value through its three main activities Vulnerability Assessment and Testing (VAPT) services, Security Training and building niche Security Products.

VAPT  
Services

Training

Security  
Products

# The Engagement:



- The client for this case study is one of the top payments company in middle east
- The client have developed a new payment gateway solution in the pipeline which will be integrated with Kubernetes for full CI/CD pipeline and faster deployment
- The clients key expectation from the service provider was to make sure that no gaps are present in Kubernetes environment and all changes go through proper vetting process
- Net Square security experts have done significant research to develop a unique checklist to assess Kubernetes implementation and environment, to identify issues in improper implementation of Kubernetes environment.

# The Result:



- The result was a set of findings which provided insights into:
- How attacker could compromise the application due to unpatched and vulnerable resources used in the application image file
  - The attacker could gain the root privilege due to the improper configuration in kubernetes installation
  - The lack of network traffic rules could have helped the attacker to gain unauthorized access to other running applications
  - How improper dashboard configuration could have been helped the attacker to gain unauthorized access to all the details of the applications running on the kubernetes
  - The attacker could modify the user roles and access the kubernetes dashboard due to improper configuration of Kubernetes installation files

# The Trust:



Net Square evokes trust from the experienced and senior IT professionals who manage and lead the team



**HIREN SHAH** [HIREN@NET-SQUARE.COM](mailto:HIREN@NET-SQUARE.COM)

Hiren is President at Net Square and leads client relationships, business development and also acts as a mentor to the team. Hiren is a business-cum-technology leader with more than 20 years of experience in IT Governance, management of IT infrastructure, IT risk and information security, Enterprise architecture and Global resource management. He is also a functional expert in the financial services industry, especially capital markets and risk management. He has presented many papers at seminars on various aspects of IT.

Previously, Hiren completed 8 years at the helm of CRISIL Ltd, a subsidiary of S&P as a CIO. Earlier he held various it and business management positions at CRISIL and other Financial Institutions. Hiren graduated as a Physics and Electronics major to ensure some of the aspects around from Mumbai University and then qualified as a Chartered Accountant (equivalent to CPA in US). He is also a CISA and CGEIT.

# The Trust:



**SAUMIL SHAH - [SAUMIL@NET-SQUARE.COM](mailto:SAUMIL@NET-SQUARE.COM)**

Saumil is Founder - CEO of Net Square and leads the delivery and R&D effort at the company. Saumil has more than 15 years experience in performing numerous ethical hacking exercises for many well-known companies. Saumil has been a regular speaker and trainer at conferences such as blackhat, rsa, hack-in-the-box, it underground, cansecwest, eusecwest, hack.lu, etc. Previously, Saumil held the position of Director of Indian operations at Foundstone Inc. And before that was a Senior Consultant with Ernst & Young.

Saumil graduated from Purdue University with a Master's degree in Computer Science and a strong research background in operating systems, networking, information security and cryptography. He got his undergraduate degree in Computer engineering from Gujarat University, India. Saumil is also a CISSP.