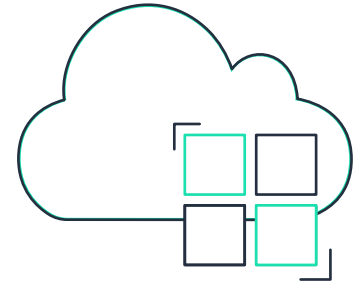# Case Study - Hosting Windows Server Workload on AWS EC2

Executive Summary

K J Quarries is engaged in extraction & export of Granite Rough Blocks exclusively. Initially the Application ERP and Tally Servers was accessed by End-Users within the Organization and continued to evolved over a year. Due to Covid-19, the End-Users was not able to Access the In-House Servers frequently which they face complex task to handle the Power resource systems. To resolve, K J Quarries partnered with Uniware Systems to simplify the complex task by moving the Business application to Amazon Cloud Infrastructure. By moving to Cloud, K J Quarries able to improve productivity by constant access to the Amazon EC2 Infrastructure.

The Challenge

Maintenance Challenge

IT Representatives or Security Patrols not available frequently at Organization, K J Quarries faced difficulties on maintaining the Systems and not able to avoid the frequent Power failures.

Technical Challenge

K J Quarries Team faced connectivity issues to access ERP and Tally Application Server while WFH. Due to Internet Bandwidth, Firewall VPN Connection failure and Network Connectivity issues the End Users not able to show improvement on the productivity.

Monitoring Challenge

IT Representative unable to monitor & manage the System Updates and Patches for the Applications, Servers, Firewall Desktop machine, the IT representative worried about security and health status of both Software and Hardware Appliance.

Why migrate your Microsoft workloads to AWS?

With over a decade of unmatched experience, AWS has the right tools to help you seamlessly migrate and modernize your Windows applications on the cloud. Gain access to a broad selection of services with deep functionality and lower the overall costs of running your Microsoft workloads. Increase or decrease capacity within minutes, not hours or days. Commission one, hundreds, or even thousands of server instances simultaneously. Get stronger security, faster performance, and greater reliability with globally dispersed Availability Zones and fewer downtime hours.

About K J QUARRIES

K J Quarries , is an Indo-Japanese Joint Venture Company in which Katti-Ma has invested to spearhead the quarrying & mining activities under professional Japanese management & supervision . KJQ has been operating Granite Quarries for the last 6 years.

K J Quarries is engaged in extraction & export of Granite Rough Blocks exclusively. K J Quarry granites are the Architect's choice due to reliable supply, scientific quarrying practices, consistency of quality & timely delivery.

The success of K J Quarries in providing high return on investing in India is a gateway for overseas investors to work with Katti-Ma to set up their projects .

Why Uniware Systems

Uniware Systems has good connection with client for more than decade. Its long standing relationship as vendor to K J Quarries by offering IT Infrastructure solutions both hardware and software licenses and maintaining their IT up to date. Since we are AWS consulting partner, we support Clients by deploying, managing and migrating on-premises infrastructure application to AWS cloud infrastructure by covering security guidelines and governance.

The Solution

Uniware Systems migrated the ERP and Tally application to an EC2 instance running the Windows operating system in the Amazon Web Services (AWS) cloud. The team together with the customer decided to lift & shift the application to quickly perform the migration.

Once the system was stabilized, the team optimized the environment for cost, reliability, and performance.
The migrated workloads are hosted on load balanced EC2 instance with a Windows Server 2012/2016 as the operating system, and they are configured to support both Microsoft and Business Applications.

Uniware team also implemented the Remote Desktop Gateway integrated on a Windows EC2 instance with secured communication to reach Tally Business Application. For ERP, the Uniware configured SSL VPN Client individual End User Machine to have secured access to EC2, ERP Application. Uniware extend on-premises networks to the cloud by establishing secure connection from anywhere using Firewall Appliance located in Organization.

The Open VPN Connection is established with supporting Firewall Appliance available with K J Quarries Organization for secured connection. On additional recommendation, Uniware included AWS VPN Service as well to establish EC2 in case of Firewall Hardware Failure and network connectivity challenge.

With EC2 Service, the bucket S3 and Cloud Alarm service is enabled for the VPC Logs and to have backup of Database connected to ERP and Tally Business Application.

Quantified Benefits of Running Windows on AWS

- 2X higher performance for a SQL Server workload than the next largest cloud provider

- 2X more regions with multiple availability zones than the next largest cloud provider

- 5X more services offering encryption than the next largest cloud provider

- 36% savings using AWS over three years, by right-sizing instances with Migration Evaluator

- 442% projected 5-year ROI running Windows on AWS

Reference:
https://aws.amazon.com/windows/

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Uniware Systems is our AWS Certified Partner in Chennai for last 3 years. Their service is good and they helped us well during COVID situation and gave us idea to move Local Infra to Cloud-AWS.

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Dhana Lakshmi
KJ QUARRIES PVT LTD

Results and Benefits

Uniware Systems was able to complete the migration to windows on the AWS cloud within a short period of time frame. The ERP and Tally workload was more responsive and resilient to failure.

The client was able to access anytime, anywhere, anyplace without depending on the power resource, network cut off and internet connectivity.

The client is now able to focus on the business development and productivity by their demands they look from Uniware Systems.

By establishing connection in two different manner, On-Site to AWS Cloud and WFH to AWS Cloud, the K J Quarries able to establish connection and accelerate the Business Operations by not worrying about the Infrastructure.

The K J Quarries Cloud Infrastructure is now managed by Uniware Systems with regular maintenance by staying up to date on Windows OS and Business applications.

The K J Quarries application and data is on minimal risk. The communication and network traffic in all parts of application is encrypted both data on rest and data on transit.

Next Steps

After Successful migration of Windows Server Workload to Amazon Web Service Cloud, Uniware System has full control of the K J Quarries IT Infrastructure by providing maintenance and health checkup report frequently to IT Representatives.

The K J Quarries IT representatives want to monitor regularly and want best way to reduce the consumption and save cost to the company. KJ Quarries also have plan to bring out other Business Application into same account organization and make centralize the Business application.

Benefits

Infrastructure Maintenance

The architecture being provision with new machines and make them all work together to provide the needed

Security

Security policies in place, making sure employees don't divulge passwords or other sensitive information to unauthorized parties,

Status Monitoring

Uniware able to monitor the infrastructure so that can be notified when an app or machine has potential issues.

Storage Backup

The backup services will allow to get things up and provide some critical information to help find out what caused the issue.

About Uniware Systems Private Limited

Uniware Systems offers specialized cloud consulting, cloud infrastructure, cloud security and managed service to business with futuristic business model. With 12+ certified cloud experts, Uniware can help Clients extracts maximum ROI from their Cloud Investments.

As an Amazon AWS Advanced Consulting partner company, we help businesses to move their Products, Tailored Applications, In House Applications, Solutions to Amazon Web Service cloud and configure custom cloud infrastructure with Secure, Feasible and Scalable manner. With an inhouse team of AWS experts, we design, build, deliver and manage new or existing cloud infrastructure on time.