



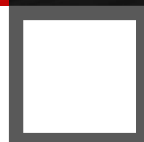
## Prepare a Future Ready Enterprise

### Our Client

Krushu Builders, Bangalore was set up in 1992 and since has been a prominent player in the construction, interiors and civil engineering contracting businesses.

They have worked with architects and individuals on bespoke buildings, with corporates and industries and institutions on large scale projects.

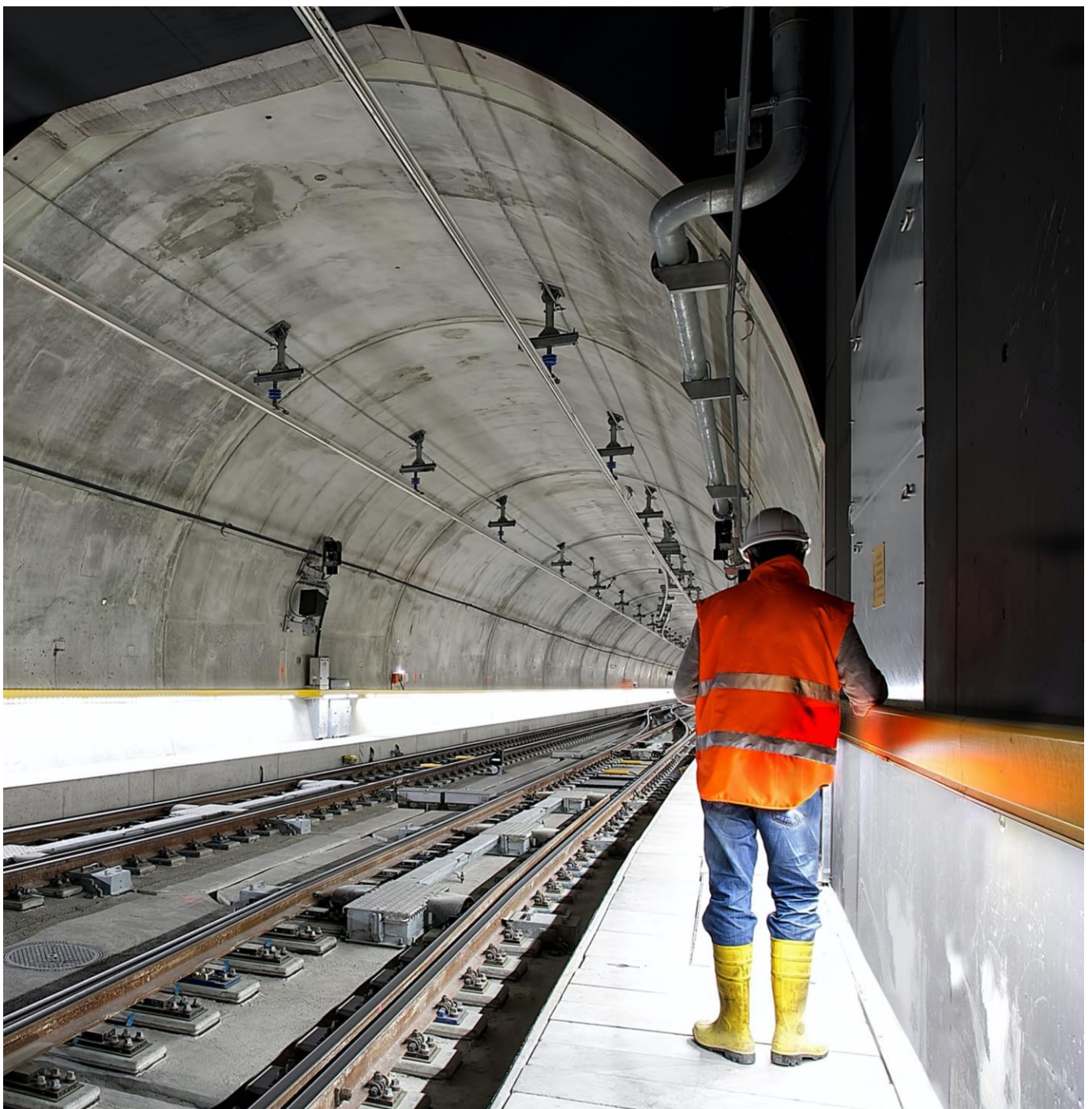
Their clientele includes Brigade Enterprises, Embassy Properties, Mantri Primus and more.



SONATA SOFTWARE

## Why SAP on AWS

- They did not have a uniform ERP system at the time of the project and they wished to modernize their business using SAP S4 HANA on the following:
  - Improve Project Management, Monitoring, Reporting, and Control of Subcontractors, Inventory, Purchases and Equipment
  - Procurement of Materials for the Projects and approvals in case of Price Deviation
  - Generation of RA Bill, Variance Reports & WIP reports for various Clients
- They are purely a construction company and do not have any data center or IT team to handle this SAP system

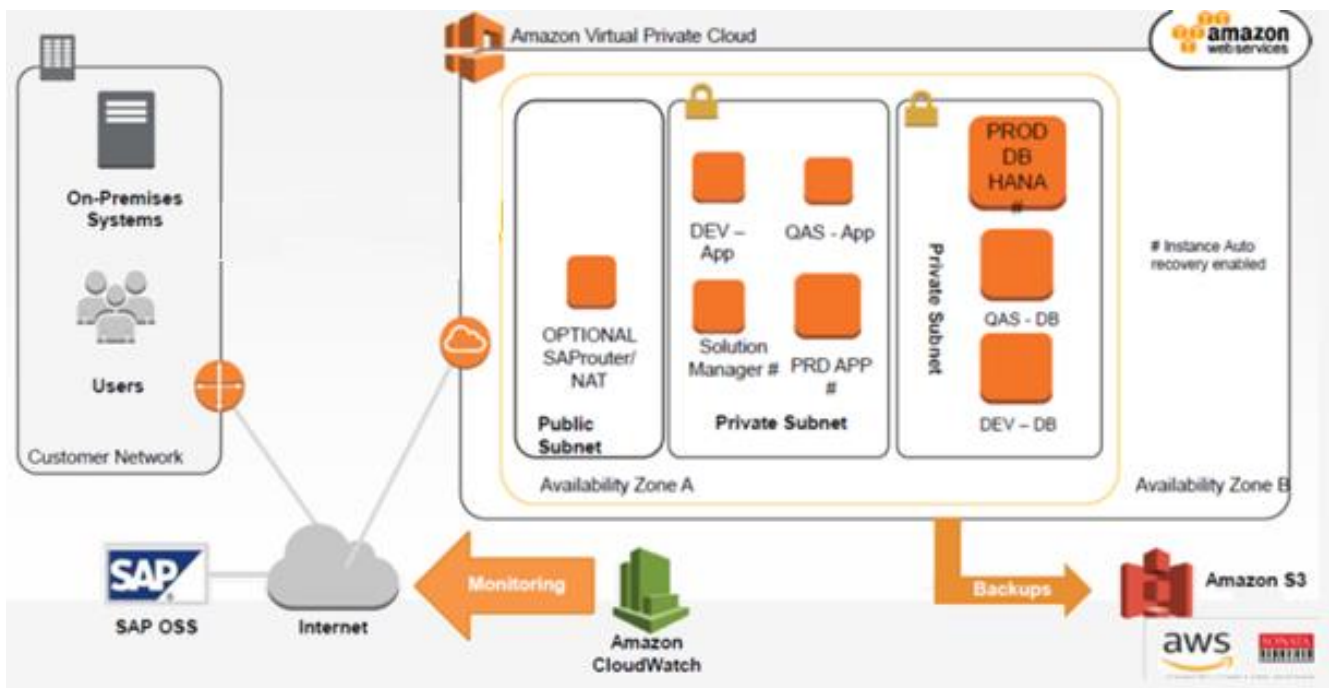


## Proposed Solution

It was proposed to run SAP S4 HANA setup on the following AWS Services:

- Amazon Elastic Compute Cloud (Amazon EC2) memory optimized r4 instances and m4 instances to accommodate the database and application servers
  - The sizing for SAP HANA Deployment Infrastructure was arrived at by using the SAP Quick Sizer tool
  - All the instances used here are SAP certified instances and they have been chosen based on the Quick Sizer output in memory and SAPS
- Amazon Simple Storage Service (Amazon S3) is used for data backups, including backup of the HANA database.
- Amazon VPC has been configured with private and public subnets where all the application and database servers were in private subnet and in public subnet SAP router, NAT gateway and bastion hosts were deployed
- Amazon EFS is used to keep binaries and share between the servers
- AWS Identity and Access Management (IAM) help manage users and authorizations
  - Users and Groups have been created using the AWS Identity and Access Management (IAM) service to implement Role Based Access Control. Sonata team – to manage and implement
    - Custom policy - based rules for Storage
  - S3 access based on the certain role policies. Each IAM entity (role) has a defined variable. Using this ID, the principal ID element, a conditional logic for the bucket policy is created to scope the access of the bucket down to only users that are using the role when accessing the bucket. Using the same ID we can restrict the access other users within the same account as the bucket
  - Root account credentials protected using MFA and not used for any day to day activities
  - Security groups are implemented to restrict access to certain ports between the servers





- SAP core modules being run to address the challenges
  - SAP PS (Project System)
  - SAP Project-Oriented Procurement (ProMan)
  - SAP HANA FICO module
  - SAP Financial Accounting (FI)
  - SAP Controlling (CO)
  - SAP Production Planning (PP)
- Monitoring and detection
  - AWS cloud watch has been enabled. Infra-structure monitoring was done using CloudWatch and remediation was based on triggers and alarms configured for service health or capacity thresholds. Basic (Infra level like CPU) and custom alerts (disk utilization, memory utilisation) configured
  - SAP Solution Manager (Solman), the centralized robust management and administration solution has been deployed to monitor and manage the SAP solution. Using SAP Solman ensures that SAP solution environment is operating at its maximum potential with minimum cost.
- Performance considerations
  - The sizing for SAP HANA Deployment Infrastructure was arrived at by using the SAP Quick Sizer tool.
  - All the instances used here are SAP certified instances and they have been chosen based on the quick sizer output SAPs count
  - EBS GP2 based volumes are used in normal instance storage where SAP Application servers and HANA DB is installed.
  - EBS GP2 based volumes are used for HANA data and log volumes
  - EBS ST1 based high throughput volumes are used for HANA DB local Backups



## Project Timeline

The project commenced in the last quarter of 2017 and went live in 2018

## Outcome/Results

- **Project Progress** - All Projects are structured in a standard way and everyone has visibility of project progress
- **Turn-around time** - Material Procurement has become simpler and reduced the turn-around time significantly
- **Revenue Analysis** - Sales Billing and Project are linked with overall revenue analysis
- **State of Financial Affairs** - Simpler Financial re-conciliation and generation of Balance Sheet was made easy
- **Easy management of IT infra** - Entire infrastructure is maintained in cloud



# WHY SONATA?

Crafting a personalized experience has been a significant differentiator for retailers. We understand that the core principles of retail and the emerging trends of digital transformation in the Retail. With the track record of delivering futuristic solutions, we help retailers to redefine the boundaries of engagement with customers across their journey, from home to store to social-media.

Sonata's platformation approach helps clients to choose a solution that best fits their needs; balancing readily available platforms and solution customization

1. **Sonata READY:** End-to-end, industry-specific digital business platforms
2. **Sonata ACCELERATE:** Deploy popular horizontal platforms adding required functionality
3. **Sonata CUSTOM:** Engineer custom platforms that deliver unique digital capability and scalability

Sonata is a global technology company, that enables successful platform based digital transformation initiatives for enterprises, to create businesses that are connected, open, intelligent and scalable. Sonata's Platformation™ methodology brings together industry expertise, platform technology excellence, design thinking-led innovation and strategic engagement models to deliver sustained long-term value to customers. A trusted partner of world leaders in the Retail, Manufacturing & Distribution, Travel and Software industries.

Sonata's solution portfolio includes its own digital platform such as Brick & Click Retail Platform®, Modern Distribution Platform®, Rezopia Digital Travel Platform®, RAPID DevOps Platform®, Kartopia E-commerce Platform®, Halosys Mobility Platform®, and Commodity CTRM Platform®, best-in-class capabilities on ISV digital technology platforms such as SAP Hybris, Cloud Engineering and Managed Services, as well as new digital applications like IoT, Artificial Intelligence, Machine Learning, Robotic Process Automation, Chatbots, Block Chain and Cyber Security. Sonata's people and systems are nurtured to bring together the depth of thought leadership, customer commitment and execution excellence to make a difference to business with technology.



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