



Always a step ahead with Future ready infrastructure

Our Client

MAG is a leading manufacturing technology group for machining tasks in milling and turning for turnkey manufacturing systems and machines with customer-specific application technology. With a strong foundation based upon renowned machine tool brands such as BOEHRINGER, Cross Hüller, Ex-Cell-O, and Lamb, MAG has become a global player with unmatched technology and expertise since its founding in 2005



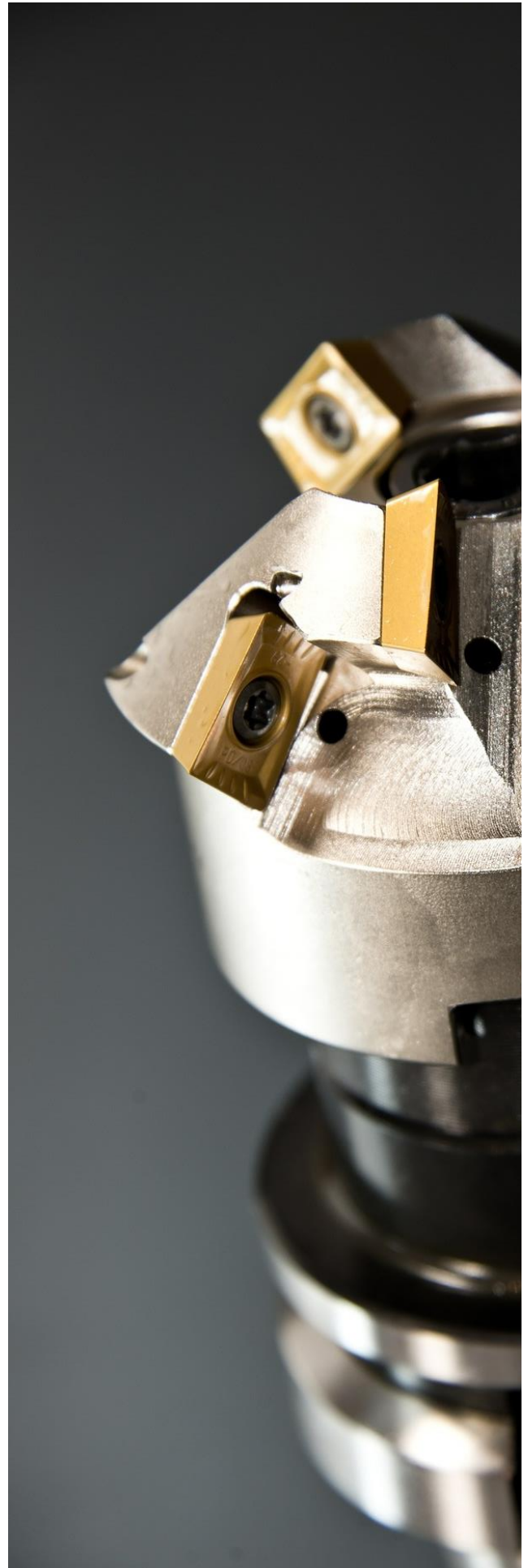
SONATA SOFTWARE

As an innovative partner for the international automotive and truck industry and their suppliers, MAG enables young people as well as professionals to apply their qualifications specifically. MAG offers a wide range of career opportunities for school students, apprentices, students, graduates and experienced professionals. MAG offers machine tools, manufacturing systems, and services including turning, milling, honing, systems integration, automation, software, maintenance, retrofit, e-Learning, and core components for machine tools. As full-scale supplier, MAG manufacturing solutions include machining technology, process capability, system design and full turnkey systems.

As their tag line indicates 'Always One Step Ahead' they chose to implement SAP in AWS Cloud. There were apprehensions initially about data security on the cloud. After receiving strong recommendation from a third-party consultant that Public Cloud platform provides well-made security for data, they started exploring the public cloud platforms. Client chose AWS Cloud due to the better pricing compared to other cloud providers. The following services were proposed as part of the solution.

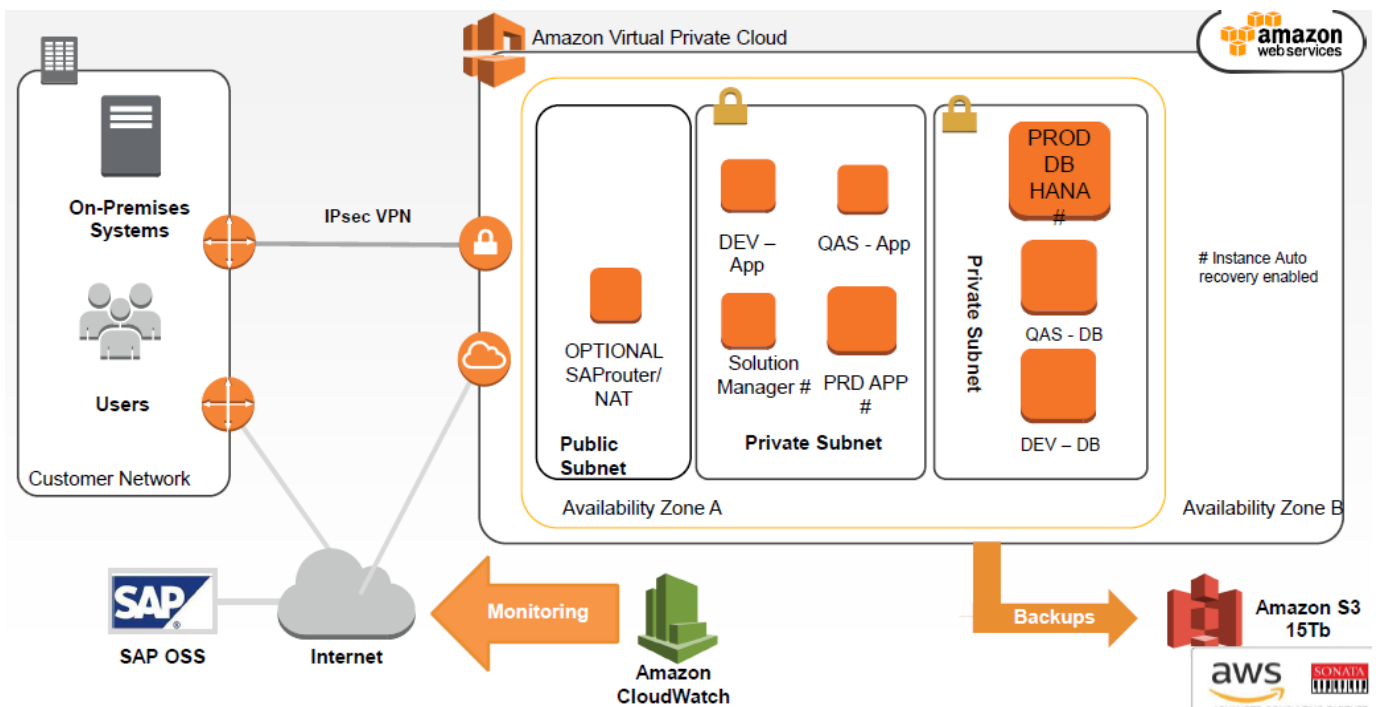
SAP Solutions involved

- SAP Quick Sizer, a web-based tool that helps translate business requirements into technical requirements has been used to arrive at SAP sizing.
- SAP Solution Manager (Solman) has been installed for centralized application management and administration to support, operate and monitor SAP system.



AWS Services

- **EC2:** Amazon EC2 Reserved Instances (RI) have been used as they provide a significant discount and provide a capacity reservation offering additional confidence in our ability to launch the number of instances we have reserved when we need them.
- **VPN site to site:** To ensure, seamless and secure data transmission through private tunnel in the public Internet.
- **S3:** Amazon Machine Image (AMI) is backed-up on a weekly basis and data on SAP HANA DB is backed-up to Amazon S3 daily.



Security considerations

- To ensure secure access to AWS services, AWS Identity and Access Management (IAM) service has been used to create Users and Groups and grant role-based access.
- Multi-Factor Authentication has been added to the account and individual users for extra security. With MFA, users must provide not only a password or access key to work with the account but also a code from a specially configured device.
- For enhanced security, DB Servers, Application Servers are in Private subnet and are accessible thru bastion host.
- Public access to AWS resources is allowed only through client VPN.

Monitoring and Detection

- **CloudWatch:** AWS CloudWatch has been enabled, as it provides data and actionable insights to monitor applications, respond to system-wide performance changes, optimize resource utilization, and get a unified view of operational health.
- AWS Trusted Advisor is enabled for best practice checks and recommendations.
- **Cost considerations:** Non prod instances (count=15) are utilized only 60 hours week and automated start/stop is implemented to save cost.
- For prod instances (count=10), 3 years no upfront standard RI has been recommended and purchased.
- To save data transfer costs, we have all the servers in single AZ with backups are enabled for all servers. In case of AZ failure, we would be able to create entire infra in another Az.
- Amazon EC2 Reserved Instances (RI) have been used to as they provide a significant discount and provide a capacity reservation offering additional confidence in our ability to launch the number of instances we have reserved when we need them.
- AWS Trusted Advisor is enabled for best practice checks and recommendations.
- Every quarter the Cloud Infrastructure is reviewed, and cost optimization measures are proposed to the client.

Project timelines

- The solution phase started in Aug 2019. The implementation of the project started in May 2019.
- Sonata continues to do the managed services to maintain their environment for next 3 years.



The Benefits

- **Achieve faster time to value:** The entire infra for SAP S/4HANA Module have been provisioned quickly which helped them to accelerate their adoption of it to improve business.
- **Scale infrastructure resources** Since, it was in AWS cloud, they have ability to increase the prod servers in case of any additional load during month end or quarter end
- **Reduce cost:** Charged only for the infrastructure resources that were used. Being able to compare the cost incurred against the projected led to cost savings.
- **Monitoring of Infrastructure:** Amazon Web Services (AWS) offered an 'always on' form of computing and sent out alerts on reaching thresholds, to deliver a mission critical environment in a highly cost-effective way.



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 has extremely good rapport with their customers in the market with 30 years of market presence. As a Cloud solutions partner, they have a strong network throughout India. Due to the partnership with all OEMs, Sonata is better equipped to understand Client requirements and suggest the best suitable solution. Sonata also has a strong technical competency.

With strong understanding of business as well as technology, Sonata provides solutions that cater to past, present and future requirement. Most enterprises tend to consider Cloud only as a part of Infrastructure stack, and not as part of their overall digital agenda. Sonata believes that a Digital infrastructure needs every piece of stack to operate in cooperation with lower level stacks to respond optimally based on demand. Sonata's Cloud Platformation™ approach helps define and achieve Digital Agenda.



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