

Case Study – IndiSage

Generative AI on AWS for AI-Powered Report Card Remarks & Parent Progress Summaries

1. About Client

IndiSage is a cloud-based School Resource Planning (SRP) platform developed by Capternal Systems Pvt. Ltd., Pune. It supports preschools, K-12 schools, international schools, colleges and multi-campus education groups across India.

The platform provides web and mobile experiences for school administrators, teachers, students and parents, covering student and teacher profiles, attendance, fees and payments, transport tracking, timetables, examinations, homework, learning content, quizzes, behaviour records, library, payroll, leave, documents, certificates and smart notifications.

IndiSage engaged Converg-IN to introduce Generative AI capabilities on AWS using Amazon Bedrock to reduce teachers' manual workload and provide parents with clearer, personalized insight into student progress while maintaining a cost-optimized AWS consumption model.

2. Business Need

At the end of every term, teachers manually prepare individual report-card remarks for students. With classes of around 30–50 students and multiple classes per teacher, this becomes a time-consuming activity, and remarks can become generic or repetitive.

Parents receive marks and grades but may have limited plain-language context about a student's strengths, improvement areas and practical next steps. There is also a need for regional-language communication for parents who prefer languages such as Hindi or Marathi.

The solution therefore needed to generate high-quality, data-grounded drafts from information already available in IndiSage, keep teachers in control of what is published, protect student data and operate within a predictable, low-cost AWS envelope.

3. Proposed Solution

AI Report Card Remarks & Parent Progress Summary

Converg-IN designed and implemented a GenAI workflow that uses existing student data to generate personalized report-card remarks and parent-friendly progress summaries.

- Student marks, attendance, homework completion, quiz scores and behaviour records are retrieved from IndiSage.
- Student names and contact details are removed before data is sent to the GenAI layer; internal IDs are used instead.
- AWS Lambda prepares structured student data and invokes Amazon Bedrock using Amazon Nova Lite.
- The model generates concise remarks covering strengths, an improvement area and a practical suggestion, together with a short parent summary.
- English and regional-language summaries, including Hindi and Marathi, are supported.

- Amazon Bedrock Guardrails check generated content for harmful, biased, demeaning or restricted content.
- AI drafts are stored in Amazon DynamoDB for teacher review. Teachers can edit, approve or reject every draft before publication.
- Approved content is written back to the IndiSage report card and parents receive a mobile notification through Amazon SNS.

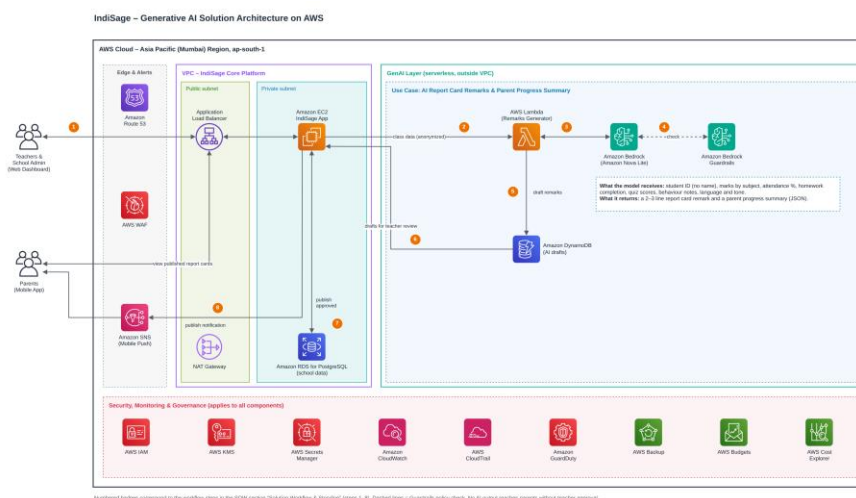
Responsible AI, Security & Cost Optimization

- Teacher-in-the-loop approval ensures no AI-generated remark is published automatically.
- Outputs are grounded only in the student data supplied by IndiSage and validated before saving.
- Amazon Bedrock Guardrails provide content and sensitive-information controls.
- Least-privilege IAM, AWS KMS, Secrets Manager, CloudTrail and Bedrock invocation logging support security and auditability.
- The GenAI layer is serverless and pay-per-use, with AWS Budgets and Cost Anomaly Detection used for cost governance.
- The target monthly AWS consumption is approximately USD 150–200.

4. AWS Services Used

Category	AWS Services / Technologies
Generative AI	Amazon Bedrock (Amazon Nova Lite), Amazon Bedrock Guardrails
Compute	AWS Lambda, Amazon EC2
Application Integration	Amazon SNS
Database	Amazon DynamoDB, Amazon RDS for PostgreSQL
Storage	Amazon S3
Networking	Amazon VPC, Application Load Balancer, NAT Gateway, Amazon Route 53
Security & Identity	AWS IAM, AWS KMS, AWS Secrets Manager, AWS WAF, Amazon GuardDuty
Monitoring & Governance	Amazon CloudWatch, AWS CloudTrail, Bedrock model invocation logging, AWS CloudFormation
Backup & Recovery	AWS Backup, DynamoDB point-in-time recovery, RDS automated backups
Cost Management	AWS Budgets, AWS Cost Explorer, AWS Cost Anomaly Detection, cost allocation tags

5. AWS Deployment Architecture



6. Business Benefits & Expected Impact

- **60–80% reduction in teacher effort** spent drafting report-card remarks.
- 50–70% faster report-card preparation during peak term-end periods.
- Multilingual parent communication in English, Hindi and Marathi.
- **100% teacher approval** before any AI-generated content is published.
- Cost-optimized GenAI platform .

7. About Converg-IN

Converg-IN Private Limited is an AWS Advanced Consulting Partner that delivers cost-effective cloud and Generative AI solutions built on AWS Well-Architected principles. Our team of 15+ certified cloud architects covers the full cloud lifecycle: consulting and cost optimisation, migration (including SAP and VMware), security, modernisation, DevOps, and 24x7 managed services.

Our Modernisation & GenAI practice helps customers move Generative AI from experimentation to production using Amazon Bedrock and the wider AWS AI/ML stack. We have delivered GenAI workloads for customers in sports technology, education, life sciences analytics, and AI-driven contact centres. We design every solution to be simple to deploy, secure by default, and cost-efficient to operate.

We deliver with an automation-first approach, using infrastructure-as-code to stand up environments quickly and repeatably. Security and governance are central to every engagement. After go-live, our proactive operations team monitors performance, health, and cost, so customers' GenAI workloads stay reliable and optimised. With a proven track record across industry verticals, Converg-IN is a trusted partner for organisations adopting Generative AI on AWS.