



# BRID Architecture - EC2 Deployment

Complete AWS Cloud Infrastructure with EC2 Deployment Strategy

## AWS Cloud Infrastructure



### Deployment Architecture

- 1 **Frontend EC2:** Next.js app served via PM2/Nginx
- 2 **Backend EC2:** Express.js API with PM2 process manager
- 3 **Database EC2:** PostgreSQL with automated backups
- 4 **Load Balancer:** Application Load Balancer (ALB)
- 5 **Auto Scaling:** Auto Scaling Groups for high availability

### Data Flow Process

- 1 **Upload:** User uploads resume via Frontend
- 2 **API:** Frontend calls Backend API endpoints
- 3 **Storage:** Files stored in S3 buckets
- 4 **AI Processing:** Bedrock analyzes content
- 5 **Database:** Data stored in PostgreSQL

**User Browser**  
Client Request

**Load Balancer**  
Traffic Distribution

**Frontend EC2**  
Next.js :10051

**Backend EC2**  
Express :10052

**Database EC2**  
PostgreSQL :5432

### Infrastructure Stats

3 EC2 Instances	10051 Frontend Port	10052 API Port	5432 Database Port
ALB Load Balancer	ASG Auto Scaling	VPC Network	SSL Security

### Technology Stack

- EC2 Instances: Compute Infrastructure
- Frontend: Next.js on Node.js
- Backend: Express.js API
- Database: PostgreSQL
- Storage: AWS S3
- AI Services: AWS Bedrock