

TOC: Talent Optimization Cloud - Infrastructure & Impact Overview

1. Objective

TOC (Talent Optimization Cloud) is a cloud-native platform that unifies job discovery, candidate deployment, mentorship, and upskilling into a single AI-powered ecosystem. It supports three personas: Employers, Job Seekers, and Mentors.

2. Personas and Core Modules

- Employers: Post job openings, list bench candidates for inter-company deployments
- Candidates: Search/apply for jobs, receive AI-matched opportunities
- Mentors: Provide structured career guidance and upskilling support

Core Modules:

- Candidate Portal
- Job Portal
- Mentor Portal
- Bench Deployment
- Communication Hub

3. AI/ML Capabilities

- AI Job-Candidate Matching (Watson NLP & LLM APIs)
- Resume Parsing & OCR (IBM Watson OCR)
- Candidate Scoring Engine
- Mentorship Recommender (Watson AutoAI)

4. Technology Stack

Frontend: React (modular web portal for 3 personas)

Backend: Node.js (REST APIs, authentication, job processing)

Cloud Infrastructure: IBM Cloud

- IBM Cloud Foundry / Kubernetes Service (for scalable deployment)

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- IBM Cloud Object Storage (resumes, documents)
- IBM Db2 or Cloudant (structured & NoSQL data)

AI/ML:

- IBM Watson NLP & LLM APIs (semantic matching)
- IBM Watson OCR (document parsing)
- IBM AutoAI (recommendation modeling)

Additional Tools:

- IBM Event Streams (Kafka-based messaging)
- IBM App ID (authentication)
- IBM Log Analysis (observability)

5. DevOps & CI/CD Strategy

- Source Control: GitHub
- CI/CD: Jenkins / IBM DevOps
- Deployment: Kubernetes / Cloud Foundry pipelines
- IaC: Terraform / IBM Schematics
- Observability: IBM Log Analysis, Prometheus
- Secrets Management: IBM Secrets Manager / Vault
- Environments: Dev / Staging / Production segregation

6. Expected Outcomes & Impact

- Reduce bench cost with real-time resource sharing
- Accelerate hiring through contextual AI matchmaking
- Increase employability with structured mentorship
- Foster inter-company collaboration for talent circulation
- Create a dynamic talent pipeline driven by learning and redeployment

TOC reimagines talent discovery, nurturing, and deployment in a hybrid work world.

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7. Future Roadmap

- Expand to multi-region deployment
- Integrate additional LLMs and AutoAI enhancements
- Cost optimization and predictive hiring insights
- Cross-company skill marketplace for contract opportunities