

A complex network diagram on the left side of the slide. It consists of numerous small blue and red nodes connected by thin lines. The nodes are arranged in a vertical column, with lines extending from them to the right, where they connect to larger, more complex structures. The overall appearance is that of a data network or a talent pool visualization.

# Exploring cost-effective Talent strategies to build New-Age Cloud teams

**Conceptualized and Developed: March – 2023**

*This document provides an overview of cost-effective Talent strategies for HR to build Cloud teams with in-demand and emerging skills. Cost savings around Global talent, Global centers, New Age Employment model, and Reskilling/upskilling have been discussed*

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## Overview

Despite the aggressive cost-cutting measures and dip in global hiring, Enterprises are diverting their budgets toward Digital transformation activities such as Cloud Transformation. This has fueled the demand for Cloud Talent across Industries. **50%** growth in Global Cloud Talent demand is expected by 2026. Demand for Critical Cloud job roles such as 'Cloud Security Engineer' increased by **3.5%** in January 2023 alone (compared to typical demand). Moreover, The technology stack of the Cloud has changed drastically in the last few years. Cloud Talent with New Age skillsets has become the priority for global firms.

## Unprecedented Challenges for HR in 2023

Unlike last year, The major challenge for HR is to hire Cloud Talent within tight budgets. This scenario adds a significant burden to already existing challenges for the Cloud talent landscape, i.e.:

- Scarcity of cloud talent across traditional hiring locations
- Limited talent pool available for New Age skillsets
- Highly competitive landscape (Companies paying premium cost)

## Draup's analysis of Six cost rationalization strategies for building/expanding Cloud team

1. **Leveraging global Cloud Talent hotspots:** Emerging global locations can be **7-8X** more cost-effective for hiring cloud talent
2. **Globalization of Cloud teams:** Globalizing Cloud teams by expanding global centers can be highly cost-effective (**43%** cost savings)
3. **Hiring from IT Services companies:** Hiring from IT Services companies can save up to **10%** talent costs for companies, as opposed to direct or Technology peers
4. **Experimenting with emerging Employment models:** Hiring Contract workers, Gig workers, and Laid off-employees can be **30%** cost-effective
5. **Reskilling disrupted IT Talent internally:** Reskilling disrupted internal IT talent into In-demand Cloud roles can save up to **20%** Talent cost
6. **Upskilling existing Cloud Talent:** Continuous Upskilling of talent with in-demand skillsets can save cost (by avoiding haphazard hiring of skilled talent at 95<sup>th</sup> percentile salary)

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- **Cost-effective Talent strategies to build cloud teams**

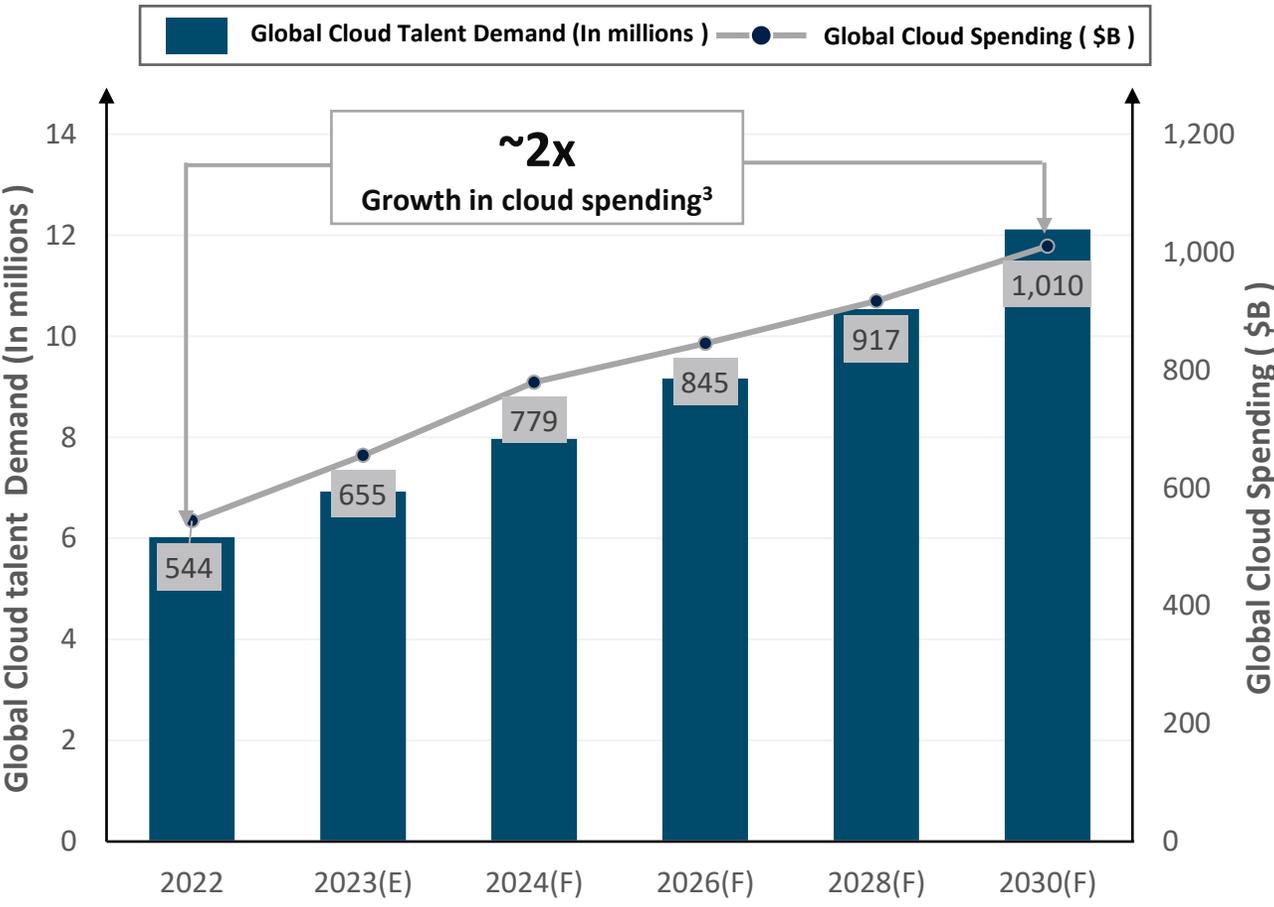
**This section covers:**

- Rising Cloud Talent demand and Cloud related spending in 2023
- Key Cloud initiatives & respective in-demand job roles for 2023
- In-demand skillset analysis for sample Cloud job role- 'Cloud Security Engineer'
- Rising HR challenges due to limited hiring budget and availability of talent with niche Cloud skills

**Rising Cloud Talent demand in 2023:** Despite the hiring freeze and economic slowdown, demand for Cloud talent is rising with increasing public/hybrid cloud adoption across enterprises



Cloud- related talent demand<sup>2</sup> is expected to grow by ~15% CAGR<sup>1</sup> for next 3-4 years



Top Reasons for the exponential rise in Cloud talent demand

- Need to optimize budgets allocated to Cloud (SaaS, PaaS, IaaS)
- Judicious utilization of Cloud to automate back/front office processes to reduce operations cost
- Increased management activities due to the complexity of Hybrid cloud, Multi-cloud environments
- Rising need to fix vulnerabilities/security issues due to the increased use of IoT and Edge computing

(~69%) CEOs and CFOs plan to increase their spend on Cloud / digital Transformation technologies in order to Efficiently Drive Digital Investments despite the economic situation

**4.15 Million**  
Is the current cloud-related talent demand-supply gap in 2023, which grew by ~56% (1.82 Million) since 2021

Source: 1. CAGRs has been estimated by extrapolating talent growth rates observed from 2016 to 2023 and by validating them with Draup SMEs. 2. Demand has been calculated by using Draup's ML model that tracks the 65M JDs across 2,000 Job Roles and it is all the sum of installed talent and job postings for that year 3. Global cloud spending is the sum of both organisational and end-user spending across all cloud verticals Note: Draup research , NAASSCOM and BLS Data , E=Estimated, F=Forecasted

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**Cloud areas/initiatives for 2023**



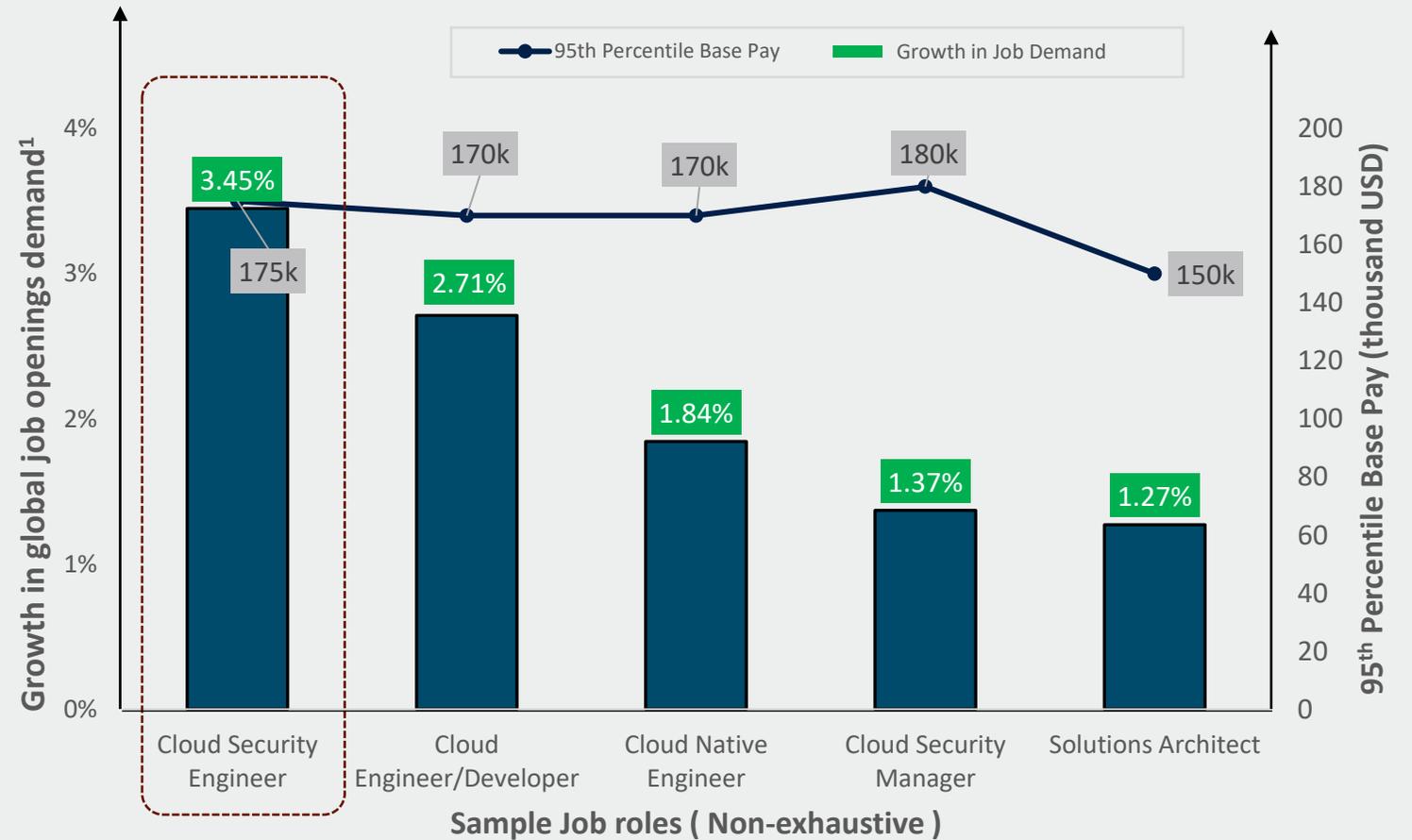
- Cloud Automation with AI & ML (leveraging AIOps)
- Hybrid Cloud Migration Capacity
- Meshed or Service-oriented Data Architecture
- Hyperscale Computing & Networks**
- Cloud-native Software Service**
- Enhancing Cloud Resilience & Security**
- Building Cloud Datacenters
- Improving Enterprise Cloud Storage
- Enabling Private Cloud Platforms

**Key in-house cloud areas**

**Increase in global job demand for sample cloud roles**

**75%** of IT executives believe that **Cloud-native Architecture** enables them to accommodate real-time changes in demand

**42%** of the IT leaders believe that **Cloud Security** is the top infrastructure priority for 2023



**Sample role is taken for skill analysis**

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Source: Draup tracks the global job openings of 4,500+ job roles across 2,500 locations. Above analysis is based on Draup's research, insights from customer engagement, industry blogs, and whitepapers.

1. Demand is calculated by comparing the Job Openings in January 2023 to openings between November 2022 and January 2023

**High demand for talent with in-demand skills:** CI/CD capabilities remain the in-demand skills for roles such as cloud Security Engineer. Serverless Computing is one of the key emerging skills



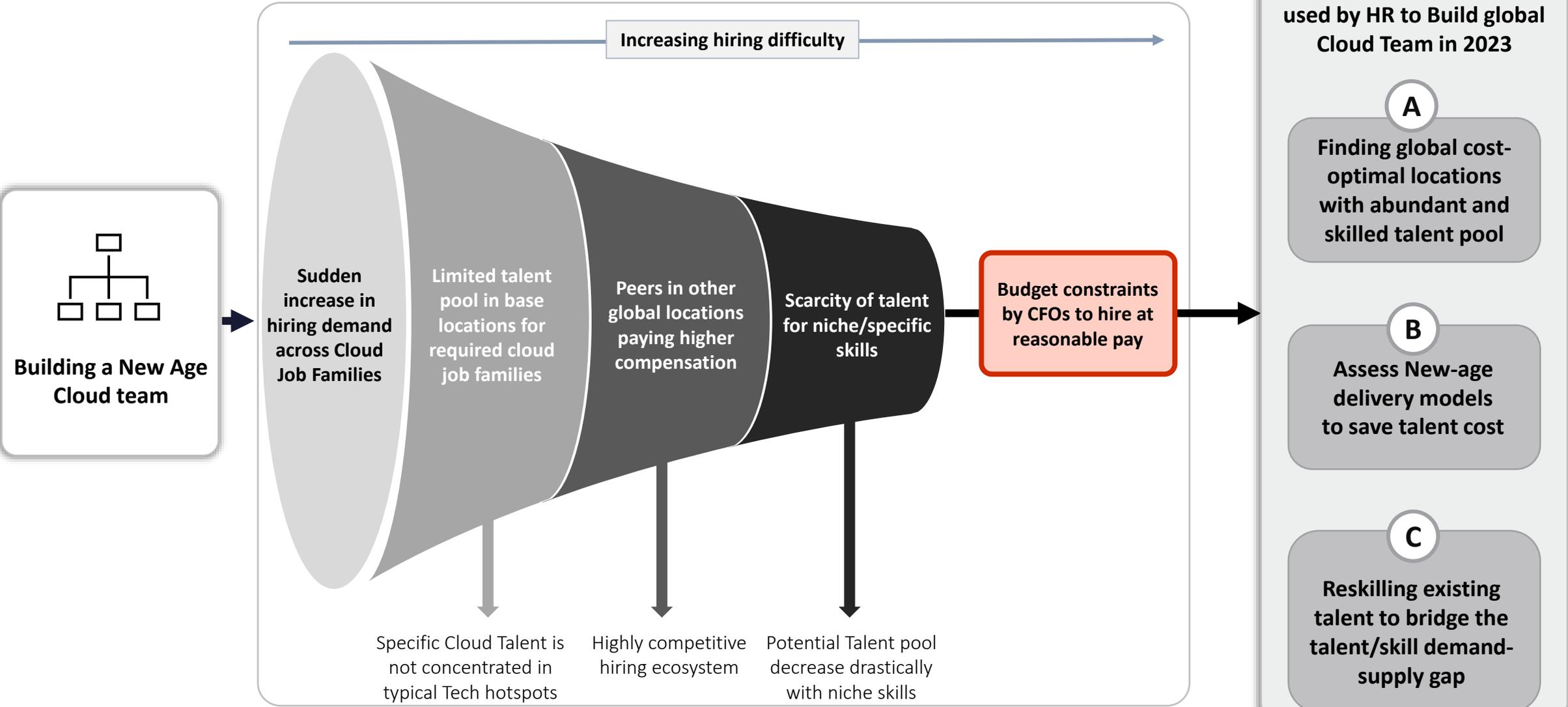
**Draup analysed 100+ cloud-driven companies to understand the emerging and in-demand cloud skillsets of a sample role - 'Cloud Security Engineer'**

Cloud Development & Deployment		Infrastructure and Networking		Security			Databases
				Detection	Assessment & Remediation		
Container Orchestration- (Kubernetes)	Hybrid, multi-cloud deployments- (OpenShift)	Infrastructure-as-Code Tools - (CloudFormation)	Cloud-native platform- (Cloud Foundry)	Host Intrusion Prevention Tools- (Splunk)	Bug Logging Tool- (OWASP)	Static Analysis- (SonarQube)	Database Management Tools- (SQL/PL-SQL)
Storage Interface- (S3)	Message Queueing- (SQS)	Cloud Infrastructure Management- (Puppet)	Architectural Styles- (REST, SOAP)	Authorization Protocol- (OpenID Connect)	Vulnerability Assessment- (Tenable Nessus)	Security Assessment- (FedRAMP)	Database-Processing Engines (Presto)
Open-source drive cloning (Clonezilla)	Dynamic Auto-Scaling	Elastic Load Balancing	Stateless Redundancy IP routing	Intrusion & Threat Detection (Suricata)	Web Service Security Standards- (WSS)	Layered Defense System- (BlueCoat)	NoSQL Databases (Cassandra, Aerospike, DynamoDB)
Web Cloud Monitoring- (CloudTrail)	Automation Servers- (Jenkins)	Scalable Computing- (EC2)	Software-as-a-Service Tools - (CloudZero)	Penetration Testing Platforms- (Burp Suite)	IT Risk Management (Xacta)	Symantec Endpoint Protection	
Cluster Management & Scheduling (Nomad)	Platform-as-a-Service (Heroku)	Serverless Computing Programs- (Lambda)	Internet Protocol Suite (TCP/ IP)	Network Security Protocol (Kerberos)	Application Security Platforms (Veracode)	Security Information & Event Management (SIEM) tool- (Splunk)	
CI/CD Tools (GitLab, CircleCI)	Programming (Groovy, Shell, Python, Terraform)	Networking Protocols (VPN, PrivateLink)	Content delivery networks- (CloudFront)	NIST Security Framework (800 series)	Security Compliance Framework- (SOC 2)	Security Tokens – (OAuth 2.0, SAML 2.0)	

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**Source:** The represented data has been derived using Draup's Proprietary Talent Database which tracks 30,000 skills.  
**Note:** The research is based on internal analysis. The list of skills is not exhaustive.

### Common bottlenecks while building Cloud teams in 2023



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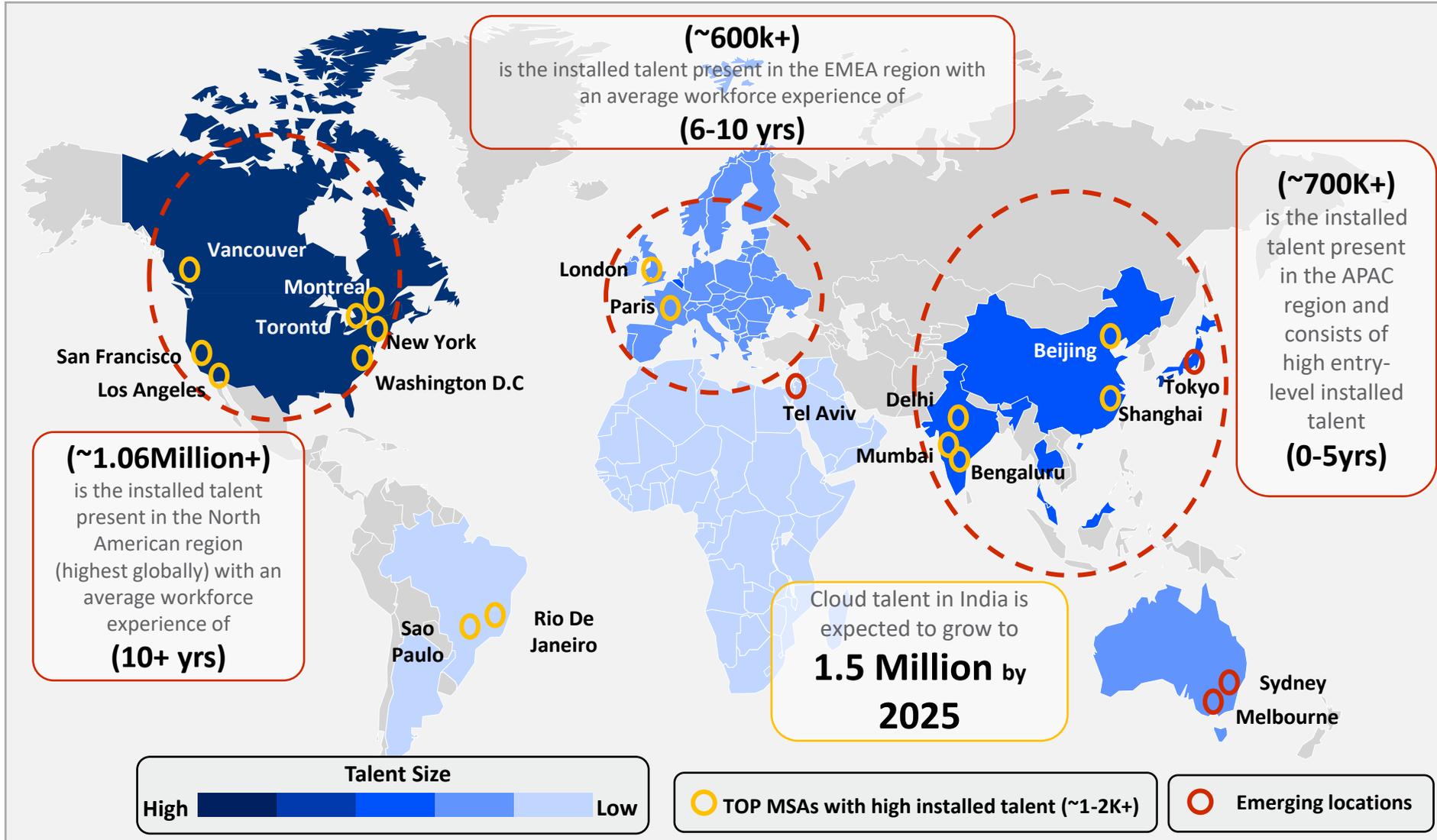
**This section covers:**

- Leveraging emerging global tech hotspots
- Leveraging Global teams and expanding/setting up global centers
- Hiring Talent from IT service providers
- Hiring Gig/Contractual workers on an hourly/monthly basis
- Reskilling strategies for disrupted job roles
- Upskilling strategies for existing cloud talent

**1. Leverage global hotspots:** Emerging locations have moderate talent pool (even for in-demand skills). Talent in these hotspots can be up to 8X cost-effective

Draup analyzed 50+ global MSAs to understand the Tops MSAs with high Cloud Talent availability and cutting-edge innovation

Draup's analysis of top Firms investing in emerging locations



JP Morgan is planning to spend **~12\$ Billion** in 2023 in **cloud/ digital transformation capabilities** & is planning to hire **~6,000+FTEs** in its Indian headquarters

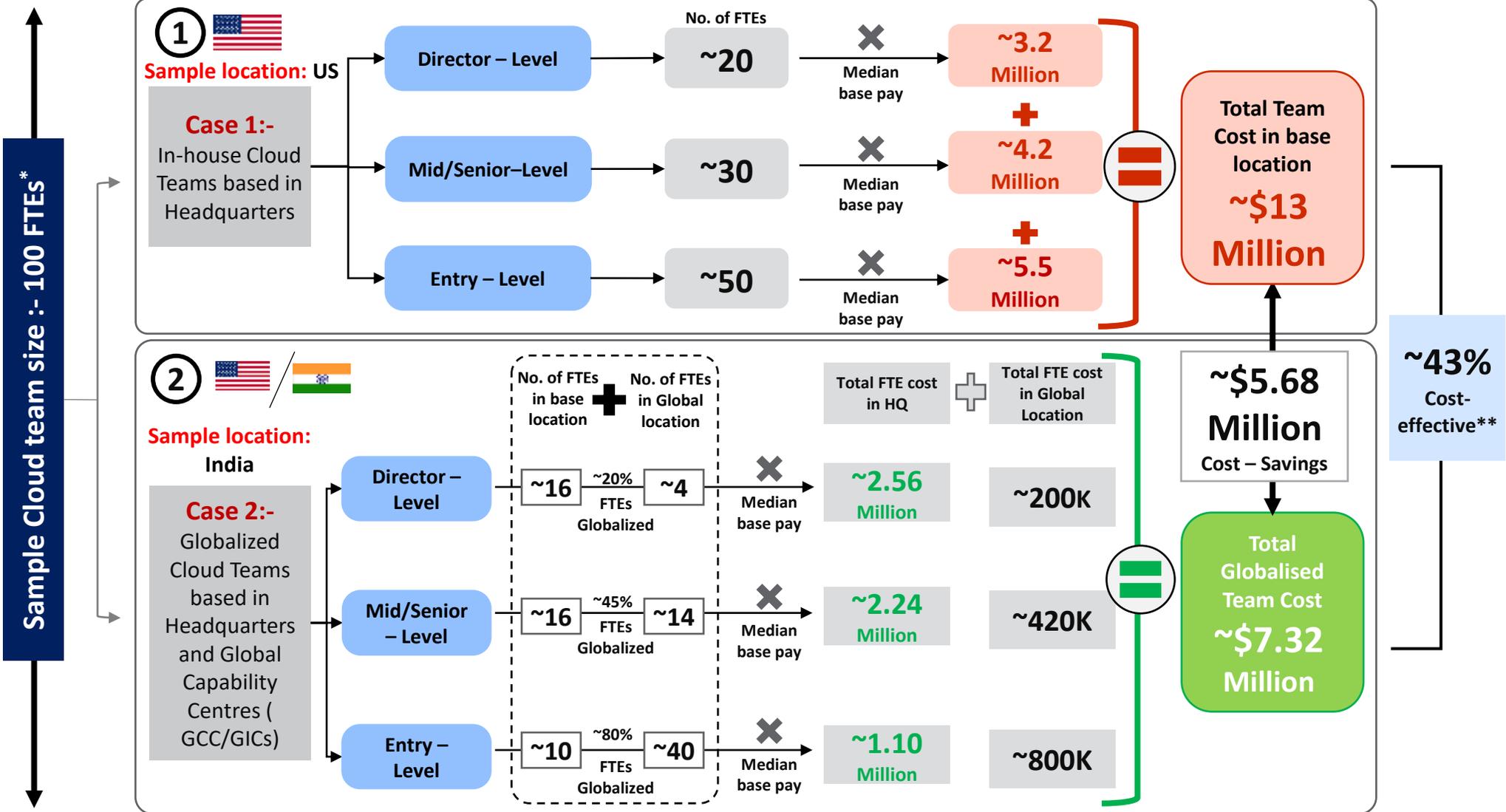
DBS Asia HUB , started in 2014 has been **focusing primarily on Cloud transformation** as well as **other emerging technologies** with over **~8,000+ FTEs**

Dell has **acquired** Cloudify a company based in **Tel Aviv ( Israel )** to boost its cloud orchestration capabilities

Note: Above analysis is based on Draup's internal research, press releases, and publicly available data. ~3Mn+ is the total installed core cloud talent across all verticals in IT, Engineering, Program / Project management and R&D only ( all other functions are excluded)

## 2. Globalization: Expanding or setting up global capability centres can help save up to (\$6 Million) cost for a scalable cloud team (sample Size of 100 FTEs)

Draup analysed 50+ cloud teams across leading firms to assess the cost-effectiveness of globalised cloud teams



### Globalization Case study

**Goldman Sachs**

Total Global Cloud workforce	~11K
Total Cloud workforce in India	~5K

**~50%** of firm's cloud teams globalized in India

**~25%** increase in the Indian cloud team in 2023

**EQUINITI**

Total Global Cloud workforce	~6.5K
Total Cloud workforce in India	~1.95K

**~30%** of firm's cloud teams globalized in India

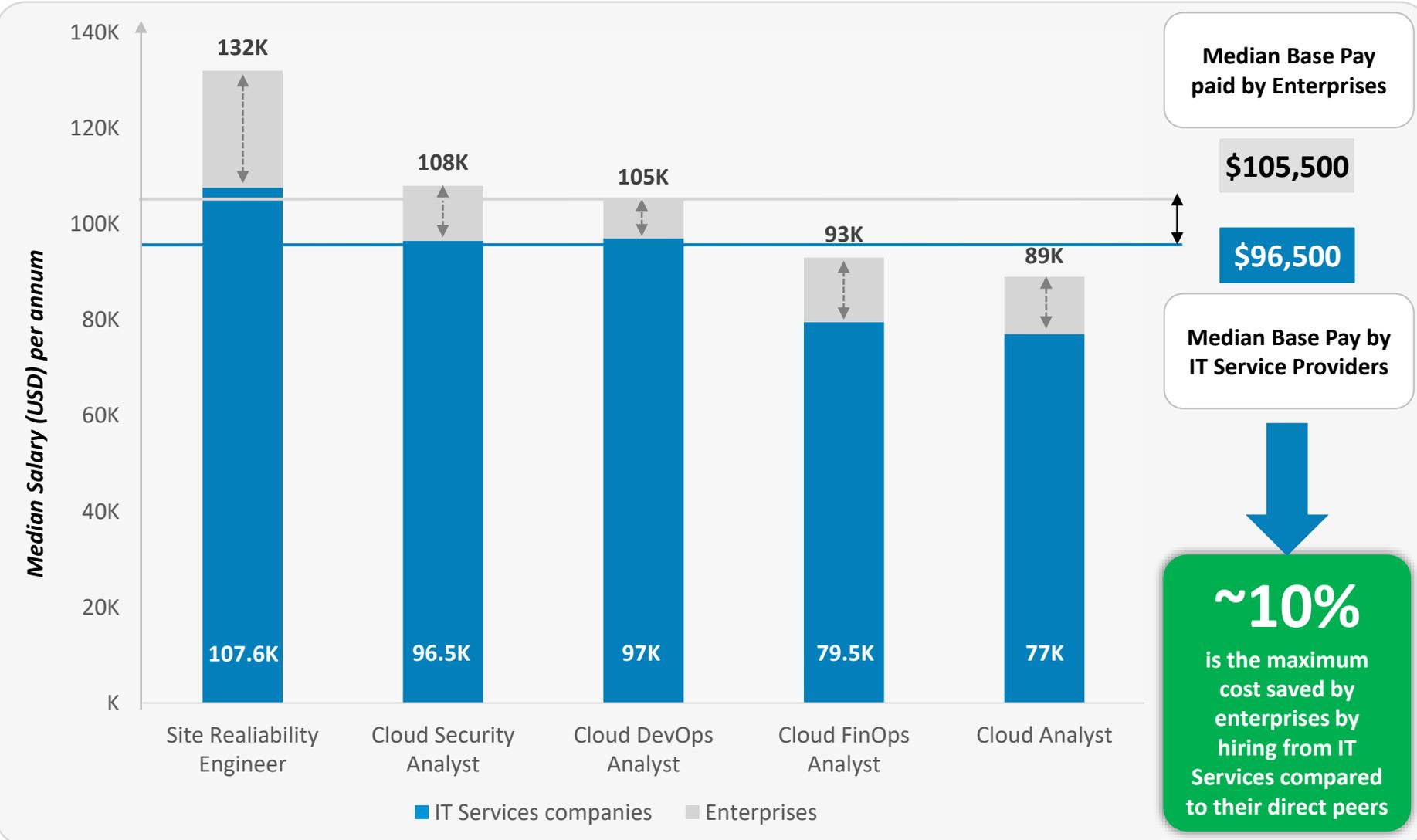
**~20%** increase in the Indian cloud team in 2023

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Note: 1. The globalization % was calculated after researching 50+ Globalized Cloud Teams. 2. Median Base Pay at each experience level in HQ- Director:160k (USD) Mid/Senior level:- 140k & Entry level talent:-110k; 3.Similarly Median Base Pay at each experience level in Globalized locations - Director: 50k(USD) Mid/Senior level:- 30k & Entry level talent:-20k. \*\*Cost-effectiveness is calculated with just the salaries excluding other miscellaneous and other Opex. \*FTE- Full-Time Employees

**3. Hiring from IT Services companies:** Cloud Talent in IT services companies are equally skilled and employed with lower Salaries (compared to direct and Tech peers). Hiring from IT services companies can save up to 10% on the cost

Median base pay analysis of Cloud job roles in Enterprises vs IT services companies in the US



Key Insights

**~10-25%**

Of FTE personnel employed by IT service providers are **more experienced (+3 yrs of work-ex)** in the primary fields of cloud computing.

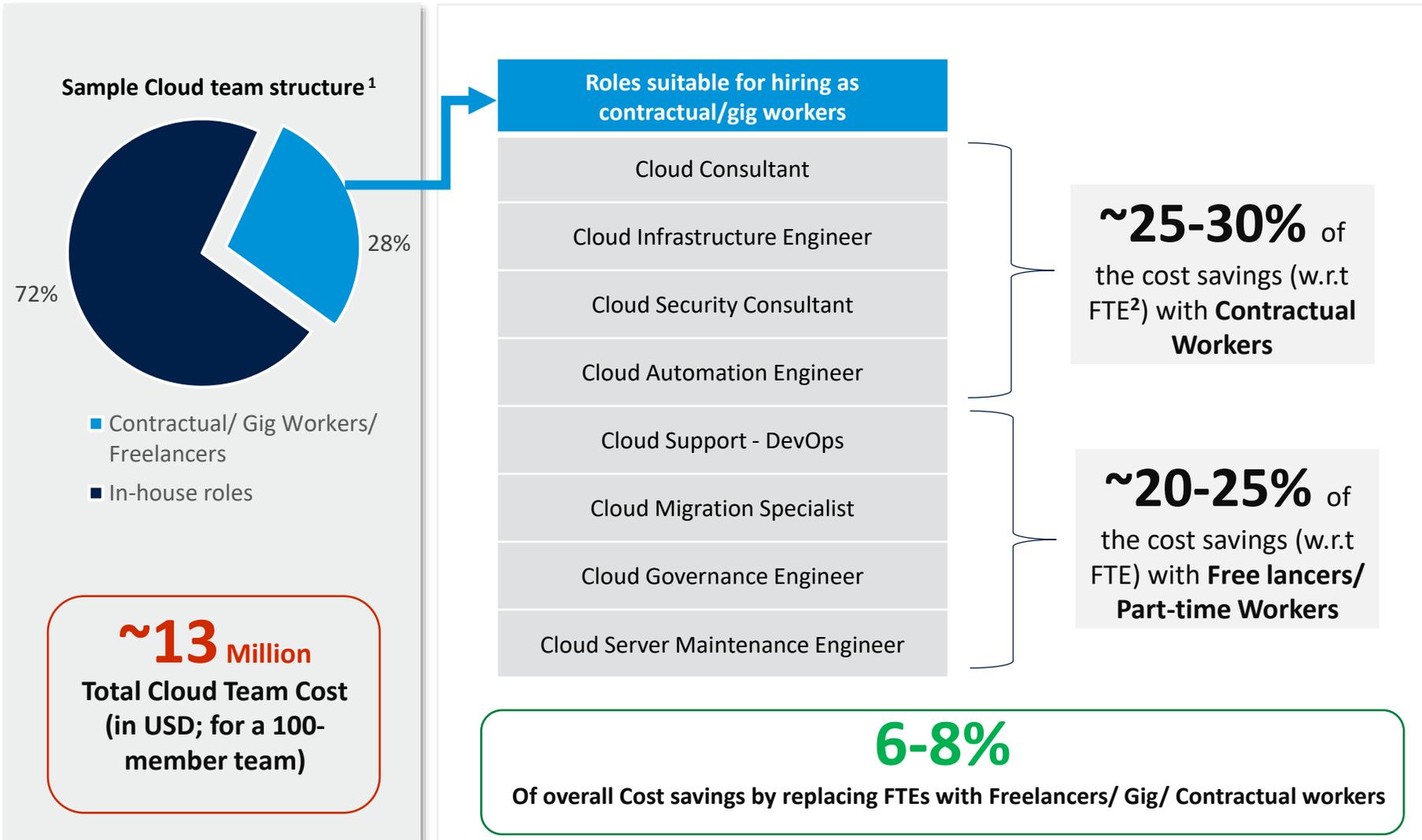
Top IT Services companies with Cloud Talent

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#### 4. Leveraging Gig economy: Certain job roles in Cloud are highly cost-effective (6-8%) when hired part-time or on a contractual basis

Identifying the job roles that are required on a 'part-time basis' or for a shorter duration can help save significant cost

Additionally, Laid-off talent can also be used to lateral hire cloud talent



**~270k+**  
Total laid-off tech talent count in the US (2022-2023)

**Top companies involved in layoffs**

**Reduced time, cost & effort**  
Talent pipeline can be fast-forwarded by hiring laid-off talent at a reasonable cost.

**Improved gender & ethnic diversity**  
Hiring laid-off professionals provide an opportunity to increase gender & ethnic diversity

**Note:** Draup analysed the team structure of 20+ legacy firms to understand the team structure & contractual/gig roles **Source:** : Draup research , NASSCOM, and BLS Data  
1. The gig/contractual percentage split was calculated after researching 20+ legacy firms. Cost saving is estimated by understanding the hourly pay and neglecting the benefits/perks given to full-time employees. 2. FTE- Full Time Employees

## 5. Reskilling internal IT Talent: Disrupted IT jobs can be reskilled to in-demand Cloud roles. Intangible and tangible benefits (20% cost saving) can be realized compared to lateral hiring

### Traditional Roles Prone to Disruption

#### Sample disrupted job roles

IT Administrator

Desktop Support Analyst

Dot Net Developer

**System Engineer**

System Administrator

System Analyst

Technical Support Engineer

Network Engineer

IT Consultant

### Sample Reskilling case study: Transitioning 'System Engineer' to 'Cloud Engineer' role

Reskilling Duration: 13-14 weeks

**System Engineer**

#### Courses/Certification Undertaken:

Foundations for Cloud Architecture (by PluralSight)  
Estimated Course Hour: 2.5

CompTIA Cloud+: Deployment (by PluralSight)  
Estimated Course Hour: 3

Learn Cloud Computing From the Basics to Advanced (by Udemy)  
Estimated Course Hour: 1

Infrastructure as a Service Solutions with Azure (by Udemy)  
Estimated Course Hour: 8

Build your IaaS Cloud infrastructure with OpenStack (by Udemy)  
Estimated Course Hour: 2

+ other courses

**Cloud Engineer**

#### Skills Acquired:

- Programming Skills (Linux)
- Cloud-Native Architecture
- Infrastructure as a Service (IaaS)
- Kubernetes/ OpenStack
- Cloud Computing & Data Virtualization
- Cloud Management & Virtual Machines (Kernel-based)

### Benefits of Reskilling

**15-20% cost savings in comparison to lateral hiring**

**Reduced attrition rate by reskilling disrupted job role**

**Opportunity to improve diversity metrics for underrepresented in-demand cloud job roles**

### Estimation Factors considered for Cost Savings Analysis

*Base Pay (in USD)*

System Engineer

92K

Cloud Engineer

140K

95<sup>th</sup> percentile of Cloud Engineer

170K

Estimated Salary of 'System Engineer' after Reskilling to 'Cloud Engineer'

~115-120K

### Sample transition into a 'Cloud Engineer' role



**Gnani Rahul N.**

United States

Experience : 6 Years



Radiant Logic

**System Engineer**

Dec 2019 – Sep 2021

Reskilled to



Radiant Logic

**Cloud Engineer**

Sep 2021 – Present

## 6. Upskilling existing Cloud Talent : Companies pay inflated salaries for similar talent with emerging/New Age skills. Upskilling existing roles can save lateral hiring cost and boost employee experience

### Cloud Security Skillsets(Non-exhaustive)

Sample Cloud Security Skills
Vulnerability Assessment- (Tenable Nessus)
Container Orchestration– (Kubernetes)
Scalable Computing- (EC2)
Security Information & Event Management (SIEM) tool- (Splunk)
<b>NoSQL Databases (DynamoDB, Aerospike)</b>
<b>CI/CD Tools (GitLab, CircleCI)</b>
<b>Security Tokens – (OAuth 2.0, SAML 2.0)</b>
<b>Serverless Computing Programs- (Lambda)</b>
Hybrid, multi-cloud deployments- (OpenShift)
Message Queueing- (SQS)
Automation Servers- (Jenkins)
Software-as-a-Service Tools - (CloudZero)

**New-age & emerging skills required for 'Cloud Security Engineer' role**

### Sample Upskilling case study: 'Cloud Security Engineer' role upskilled with in-demand & emerging skillsets

Upskilling duration: 11-12 weeks

Skills and Course Sequencing

Cloud Deployment & Scaling	Cloud Infrastructure & Networks	Cloud Security
<b>DevOps, CI/CD for Beginners</b> (by Udemy) Estimated Course Hour: 2.5	<b>AWS Lambda and the Serverless Framework Learning</b> (by Udemy) Estimated Course Hour: 7	<b>Getting Started with OAuth 2.0</b> (by PluralSight) Estimated Course Hour: 2.25
<u>Skills Acquired</u> CI/CD pipelines, Automation Servers- (Jenkins)	<u>Skills Acquired</u> AWS Lambda function & Serverless framework YAML, DynamoDB, AWS S3, API Gateway, EC2, CloudWatch	<u>Skills Acquired</u> Authorization Protocol- (OpenID Connect) API Security, OAuth 2.0

### Skillsets of an upskilled 'Cloud Security Engineer'

- Programming Skills- Python, Java
- Vulnerability Assessment
- Security Information & Event Management
- Kubernetes
- Authorization Protocol- (OpenID Connect)
- CI/CD pipelines, Automation Servers- (Jenkins)
- AWS Lambda function & Serverless framework
- DynamoDB
- API Security, OAuth 2.0

Existing skills
Skill Addition

### Upskilling Benefits

**74%** Employees are ready to learn new skills in order to *be future-ready*

**#1** "Providing learning opportunities" is the No. 1 way organizations are working to *improve retention*

Boost *employee engagement & satisfaction* by eliminating the feeling of stagnation

## About Draup

## Draup Capabilities & Data Assets



## EMPOWERS DECISION MAKING IN

Strategic Workforce Planning

Talent Acquisition

Peer Intelligence

Diversity & Inclusion

Career Path Development

Global Locations Footprint

University Relations

Digital Transformation

and diverse other use cases...

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**700M+**  
PROFESSIONALS



**4,500+**  
JOB ROLES



**500,000+**  
PEER GROUP  
COMPANIES



**33**  
INDUSTRIES



**280M+**  
JOB DESCRIPTIONS



**300,000+**  
COURSES



**2,500+**  
LOCATIONS



**14,000+**  
UNIVERSITIES



**4M+**  
CAREER PATHS  
ANALYZED



**30,000**  
SKILLS



**47,000+**  
DIGITAL TOOLS  
& PLATFORMS



**175,000+**  
UNIVERSITY  
PROFESSORS



**75+**  
MACHINE LEARNING  
MODELS DEVELOPED



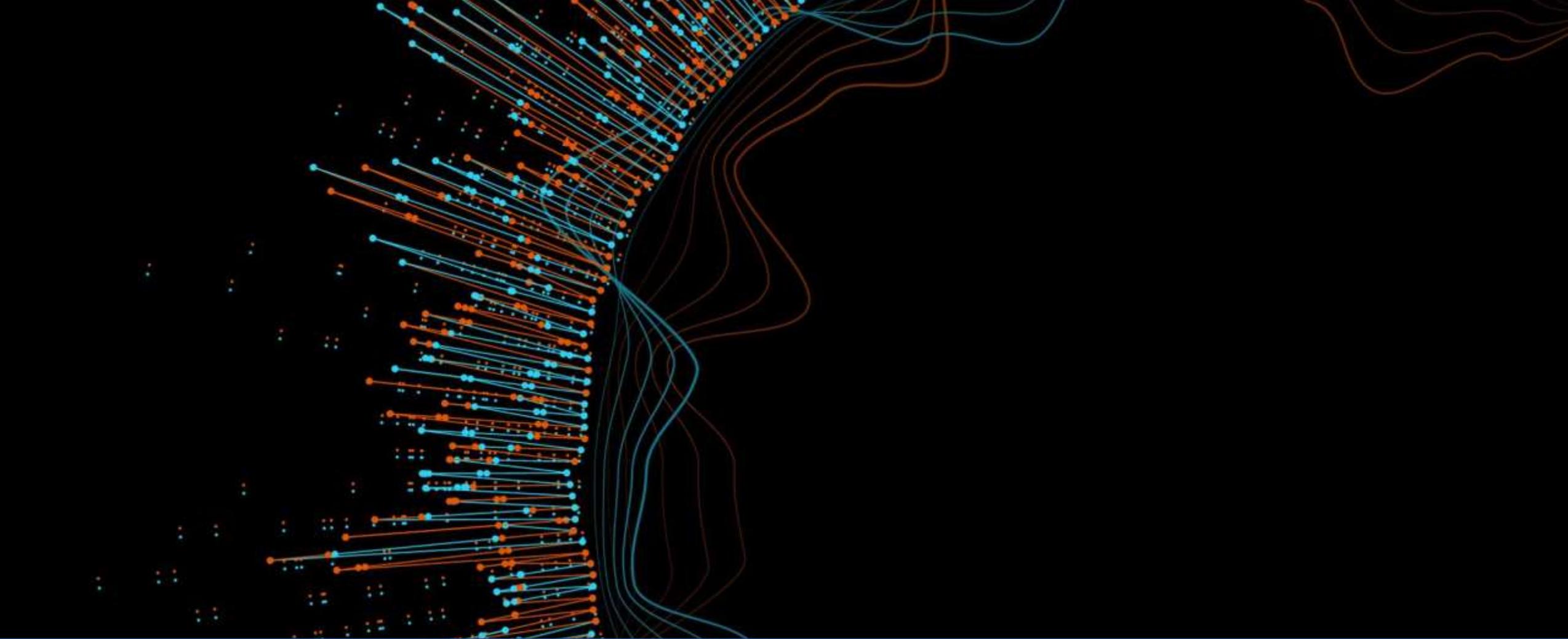
**16M+**  
DAILY DATA  
POINTS ANALYZED



**100+**  
LABOR STATISTIC  
DATABASE



**1,000+**  
CUSTOM  
TALENT  
REPORTS



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