



Draup analyzed NetApp, Inc.'s current strategic business priorities and partnerships to better understand immediate focus areas and future bets. The future roadmap for its digital offerings has been laid out based on the evidence gathered from our research. We have also analyzed some of the critical technology centers of NetApp, Inc., covering the breadth of parameters considered across the Center focus area and Potential Key Leaders to reach out to Draup. The report also identifies outsourcing partners and engagement for NetApp, Inc.



Key Business Priorities

- NetApp focuses on **strengthening the security** and reliability of data centers in real-time against cyber threats and optimizing the **cloud portfolios to transform businesses**
- NetApp delivers simplicity and savings to block storage with a new all-flash SAN array and **introduces a ransomware recovery guarantee** for managing and **recovering from ransomware** threats to meet or **exceed sustainability**



Global Presence

San Francisco Bay Area, United States, and Bengaluru Area, India serve as the critical hub area with a focus on Cloud Computing, Application Development & Maintenance, and Software Testing related engagements



Outsourcing Engagements

Application Development & Maintenance is the highly outsourced segment. UST Global is the key strategic outsourcing partner for NetApp, Inc.



Future Focus Areas

Hybrid Multi-cloud Environments Solutions is a key opportunity area for service providers. NetApp aims to deliver portfolio innovations to address skyrocketing energy costs, and heightened sustainability goals for global organizations and offers new ways for companies to monitor, manage, and optimize their carbon footprints across their hybrid, multi-cloud environments

(2023) (2023) ... 47%

Company Overview and Financial Summary: NetApp, Inc.'s revenue increased by 1% in 2022, due to an increase in services revenues, primarily driven by an increase in public cloud revenues







NetApp is a company providing hybrid cloud data services. They offer cloud storage, data services, cloud controls, and analytics, enabling organizations to manage, secure and protect data from on-premises to public and hybrid clouds.



George KurianChief Executive Officer

Company Overview



Year of Establishment: 1992



Headquarter:San Francisco Bay Area,
United States



Employees (2023): ~ 12,000



Revenue (2023): \$ 6.36 Billion

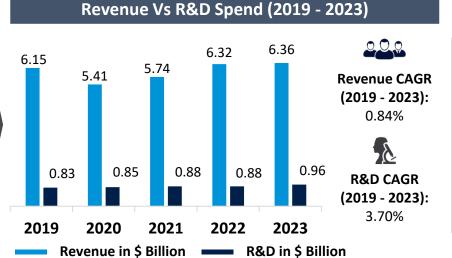


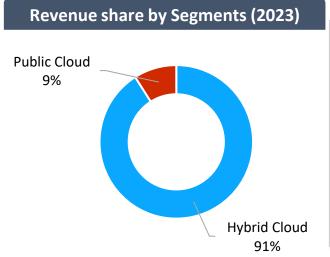
R&D (2023): \$ 0.96 Billion

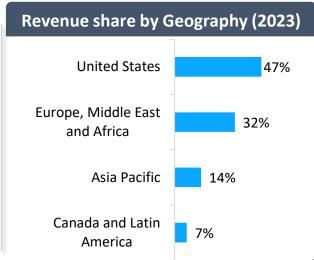


Financial Snapshot







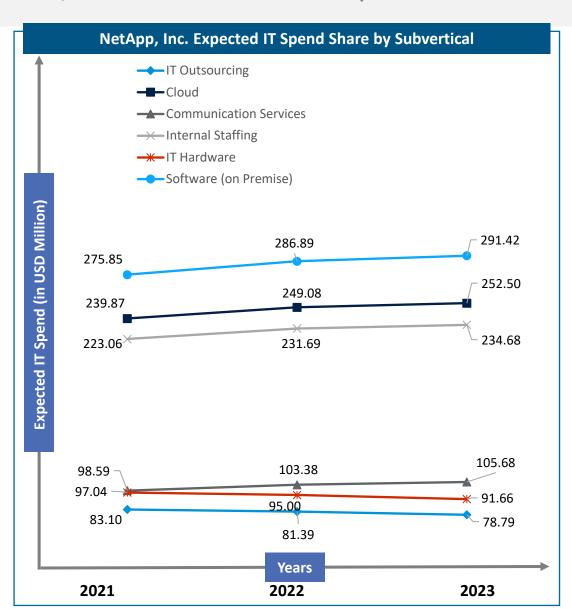


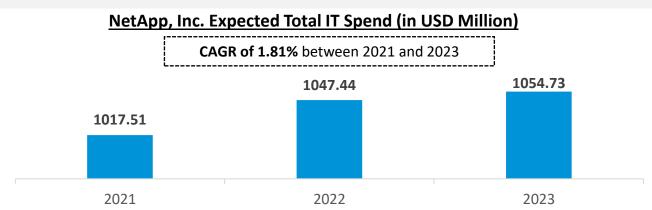


- NetApp, Inc. Revenue FY2023 compared to FY2022 based on business segments:
 - Hybrid Cloud segment revenue had decreased by 2% in FY2023 compared to FY2022, primarily due to lower sales of all-flash array systems, as a result of softening customer demand
 - **Public Cloud** segment revenue had **increased by 31%** in FY2023 compared to FY2022, primarily due to growing customer demand for NetApp's diversified cloud offerings, coupled with overall growth in the cloud market, and the acquisitions of Instaclustr and CloudCheckr, Inc.

NetApp, Inc. IT Spend Forecast: NetApp, Inc. is expected to steadily grow its total IT spend at a CAGR of 1.81% till 2023, with Communication Services expected at a CAGR of 3.53%







NetApp, Inc. Expected IT Spend by Subvertical

Key Growing Subvertical	Subvertical Description	CAGR (2021 – 2023)
Cloud	SaaS, IaaS, and other public cloud	2.60%
IT Hardware	Infrastructure & Devices - Network Equipment, Server/Storage, Phones, and Peripherals	-2.81%
Software (on Premise)	Software (on-premise)	2.78%
Internal Staffing	Personnel & Inhouse	2.57%
IT Outsourcing	Tech Outsourcing, Application Development, System and Network implementation, IT Support & Training	-2.63%
Communication Services	Fixed and mobile telco	3.53%

Source: The IT spend of NetApp, Inc. was calculated by using the Draup Proprietary Model, which utilizes publicly available datasets for Digital Intentions, Use cases, Outsourcing partnership datasets, Company's Financial Reports, Official Public commentaries along with Draup Profile Database, and Draup's Salary estimation ML model to arrive at the estimates for the expense in each spending category by the Company from 2021 to 2023

Business Intentions (1/2): Technologies like Cloud, and Internet of Things enable to digitize of IT & Admin



Business Intention	Digital Theme	Use case Clusters	Use Case	NetApp, Inc.'s Engagement	Associated Technologies
				NetApp - CloudJumper Acquisition For Desktop Virtualization	
	Network Optimization Virtualization	NetApp has acquired CloudJumper to launch the NetApp Virtual Desktop Service (VDS) that solves the most challenging problems of virtual desktop services and application management, allowing customers to deploy, manage, monitor, and optimize those environments as a total solution from a single company on the public cloud of their choice.	CloudInternet of Things		
				NetApp Has Introduced Cloud Migration	
IT & Admin Digital Enterprise	Data Management Cloud Migration	NetApp has launched NetApp for data management on the cloud, The cloud migration platform enables the management of hybrid, multi-cloud storage of data, The platform also manages the data services and controls the database.			
			Netapp's Cloud Workload Protection		
	Network Cloud Workload Optimization Protection	NetApp has acquired Data Mechanics and Spot; the spot automates and optimizes workloads running in public cloud environments. Data Mechanics integrated with the Spot by NetApp team and portfolio to accelerate the development of Spot Wave solution, which simplifies, optimizes, and automates Spark workloads running in public clouds.	• Cloud		
			NetApp's Cloud-based Data Management		
	Data Management	Cloud-based Data Management	NetApp, a cloud-led, data-centric software business, applies its software innovation to help customers thrive in a cloud world. It offers cloud data services for the management of applications and data across cloud and on-premises environments.		

Source: Draup Business Intentions Module

Business Intentions (2/2): Technologies like Cloud enable to digitize of Software & Solutions



Business Intention	Digital Theme	Use case Clusters	Use Case	NetApp, Inc.'s Engagement	Associated Technologies
				NetApp, Inc-OVHcloud partnership for Enterprise File Storage	
Software &		Data Management	Cloud-based Data Management & Storage	NetApp, Inc has partnered with OVHcloud for Enterprise File Storage, this all-in-one platform offers great ease of implementation while optimizing cloud storage costs, increasing application performance, and ensuring data protection and compliance.	• Cloud
Solutions				ONTAP	Cloud
		Hybrid Cloud	Hybrid Cloud for IT Modernization	NetApp has implemented enhanced capabilities across its hybrid cloud portfolio to help organizations modernize their IT infrastructures. Netapp launched the ONTAP software, that enables enterprises to autonomously protect against ransomware attacks based on machine learning with integrated pre-emptive detection and accelerated data recovery.	

Source: Draup Business Intentions Module

Strategic Initiatives: NetApp focuses on delivering solutions for Kubernetes to application delivery, reducing complexity and burdens for DevOps teams to provide greater agility, reliability, and efficiency



Business Intentions	Digital Use-Case/Area	Partners	Output
	Hybrid Multi-cloud Data Management		NetApp opened new International Headquarters in Cork, Ireland , to extend the company's continued investment in hybrid multi-cloud data management to support its global customers through a broad ecosystem.
Cloud Solutions	Modernize and Scale Enterprise Workloads	vm ware [*] aws	NetApp partnered with VMware , and AWS to help customers move workloads onto the cloud quickly and efficiently, saving them time, money, and resources with the added benefit of integration with the complete NetApp portfolio.
Su	Sustainability Goals		NetApp delivers portfolio innovations to address skyrocketing energy costs, heightened sustainability goals for global organizations, and offers new ways for companies to monitor, manage, and optimize their carbon footprints across their hybrid, multi-cloud environments.
Security Solutions	Cohesive Data Protection		NetApp upgrades new capabilities in NetApp BlueXP , further strengthening NetApp's position to build on its powerful, unified experience and deliver data service capabilities that can discover, manage, and protect data across the multi-cloud infrastructure.
	Modern Block Storage Offering		NetApp delivers simplicity and savings to block storage with a new all-flash SAN array and introduces a ransomware recovery guarantee for managing and recovering from ransomware threats to exceed sustainability and savings goal
	Continuous Security Solution		NetApp's Spot Security delivers a solution for continuously assessing and analyzing cloud security posture and enables DevOps and SecOps teams to identify misconfigurations, reduce their potential attack surface, and ensure compliance.
Software Support	Continuous Delivery Solution		NetApp introduced Spot Ocean CD , a continuous delivery solution for Kubernetes to application delivery, reducing complexity and burdens for DevOps teams.
	Capacity Flash Storage		NetApp offers the upcoming availability of the NetApp AFF C-Series , a new family of capacity flash storage options that deliver lower-cost all-flash storage, and NetApp AFF A150, a new entry-level storage system in the AFF A-Series family of all-flash systems.

Note: Strategy curated for last 1 year.

Centre Setup

Partnership

Inhouse Development

Executive Movements: NetApp, Inc. focuses on strengthening its leadership team to provide practical solutions for businesses and individual consumers



Executive Movements



Andrew Sotiropoulos
Date of Announcement
3rd May 2023

- NetApp has appointed **Andrew Sotiropoulos** as **Senior Vice President and General Manager for Asia Pacific to** preside over NetApp's business and spearhead the company's expansion plans in the region
- His priorities include growing NetApp's enterprise storage and cloud business, strengthening its partner ecosystem, and extending its leadership in regional markets



Haiyan Song

Date of Announcement

3rd Apr 2023

- NetApp has appointed **Haiyan Song** as **Executive Vice President and General Manager of CloudOps Business** to serve as a key member of the executive leadership team and report directly to NetApp CEO George Kurian
- She is responsible for leading NetApp's CloudOps business, which delivers innovative solutions and services that enable organizations to harness the power and enormous potential of the cloud to drive business outcomes
- She is working closely with NetApp's global customers, partners, and product teams to extend NetApp's hybrid, multi-cloud leadership



Piero Gallucci
Date of Announcement
2nd Nov 2022

- NetApp has appointed **Piero Gallucci** as **Vice President and General Manager of, UK & Ireland to** lead UK and Ireland employees while focusing on NetApp's transformation as a hybrid cloud leader in the market
- As part of NetApp's EMEA & LATAM leadership team, Gallucci is report to Giovanna Sangiorgi, Senior Vice President for EMEA & LATAM

Source: NetApp, Inc. Newsroom, Draup Signals Module

Note: Strategy curated for last 1 year.



Strengths

- NetApp focuses on continually enabling AIOps in ever-expanding ways driving simplification
 of complex storage and data management operations, all while simultaneously enhancing
 the cyber resilience posture that our customers attain through BlueXP
- NetApp delivers portfolio innovations to address skyrocketing energy costs, heightened sustainability goals for global organizations and offers new ways for companies to monitor, manage, and optimize their carbon footprints across their hybrid, multi-cloud environments
- NetApp leverage existing VMware-centric resource investments including people, processes, and technologies from on-premises and on the cloud for consistency of operations

Weaknesses

- NetApp may be negatively impacted by a security breach through a cyber attack, cyber intrusion, insider threats or otherwise, or other significant disruption of the IT networks and related systems or of those who operate for sure of the customers
- NetApp is unable to develop, introduce and gain market acceptance for new products and services while managing the transition from older ones which could affect the operating results, financial condition, and cash flows
- NetApp faces products or services that are defective or are perceived to be defective as a result of improper use or maintenance, operating results, including gross margins, and customer relationships may be harmed

Opportunities

- Enterprise Software industry focuses on strengthening the security and reliability of data centers in real-time against cyber threats and optimizing the cloud portfolios businesses
 - NetApp introduced Spot Ocean CD, a continuous delivery solution for Kubernetes to application delivery, reducing complexity and burdens for DevOps teams to provide greater agility, reliability, and efficiency
- NetApp's Spot Security delivers a solution for continuously assessing and analyzing cloud security posture and enables DevOps and SecOps teams to easily collaborate to identify misconfigurations, reduce their potential attack surface, and ensure compliance

NetApp⁻

Threats

- New rapid, significant technological changes, frequent new product and service introductions
 and enhancements, and evolving industry standards adopted by a few competitors within
 Enterprise Software pretend to be a menace to NetApp, Inc.
 - Hewlett Packard Enterprise has introduced a next-generation compute portfolio designed to power hybrid environments and digital transformation. It could impact the digital solutions of NetApp, Inc.
 - Amdocs amAlz combines carrier-grade architecture leveraging open-source technology with large language AI models, impacting NetApp, Inc.'s AI solutions

Digital Tech Stack: NetApp, Inc.



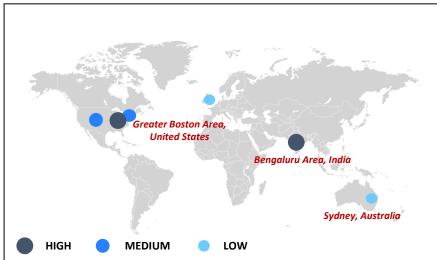


High

Hiring Analysis: NetApp hired employees in the field of Java Engineer to lead a development team in designing, implementing and operating applications and services using cloud native architectures



Hiring Map





NetApp, Inc. Talent Landscape

~ **1,016**Job Posting (last 12 Months)

Job Posting (last 12 Wonths)	
Job Posting Split across Key Locations	
Americas 46%	
EMEA	29%
APAC	25%

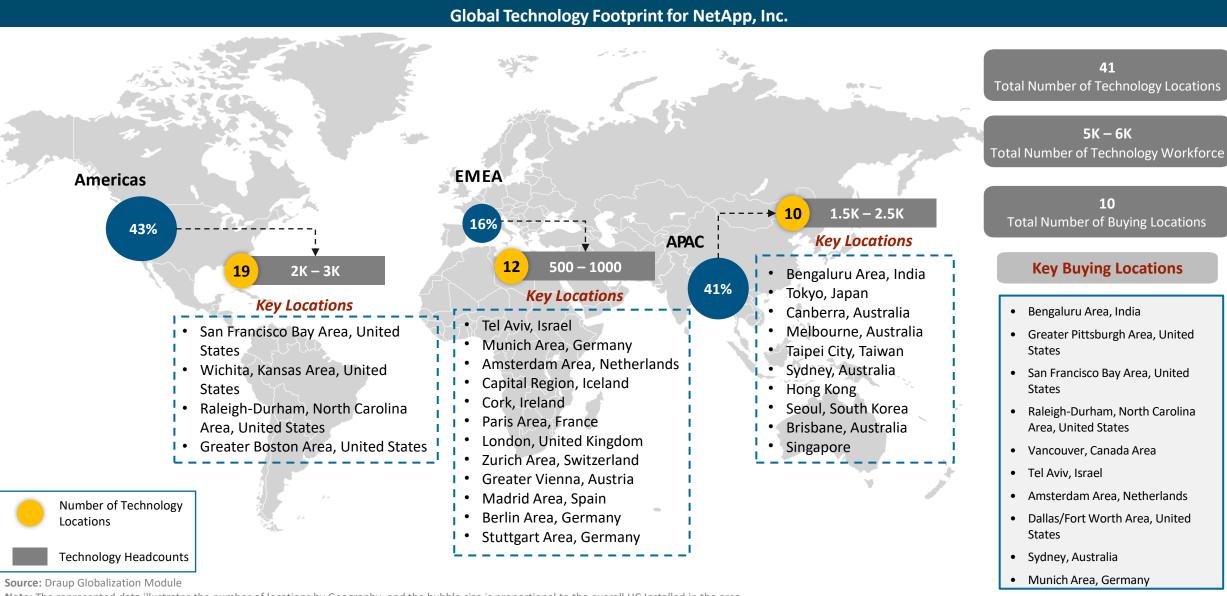
Key Job Roles in Demand

Java Engineer	Software Engineer	Cloud Engineer
DevOps Engineer	Network Security Engineer	Database Reliability Engineer
Full Stack Engineer	Cyber Security Engineer	Data Engineer
QA Engineer	System Engineer	Information System Engineer

Source: DRAUP's Hiring Module. Above mentioned skills are based on the job role in the demand for the last 12 months is not exhaustive. **Note:** The above hiring analysis is based on Technology functions.

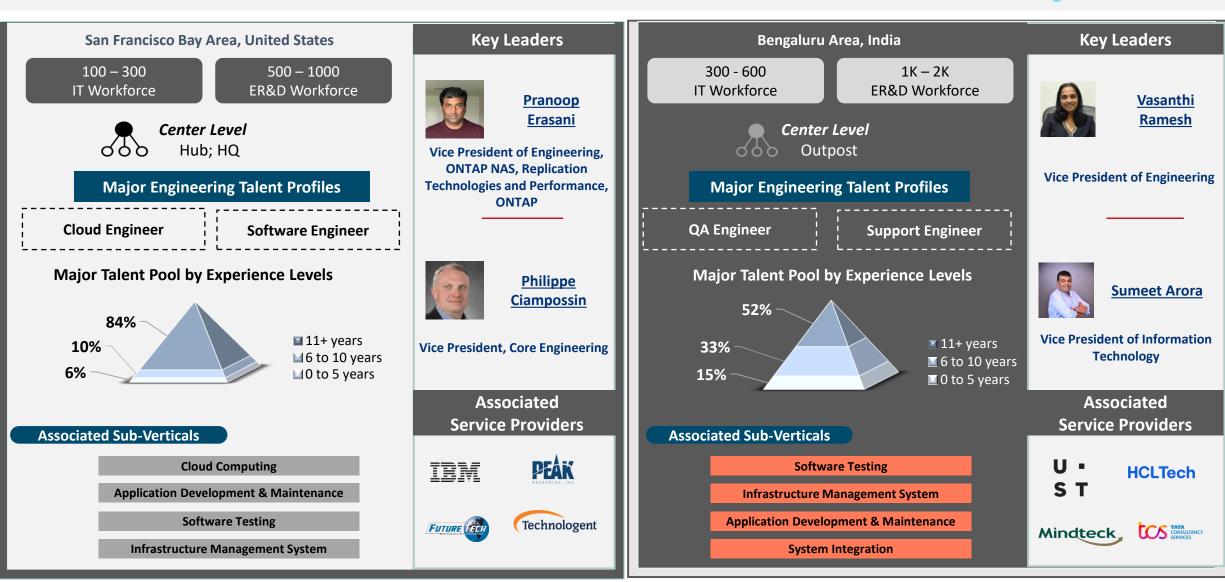
Globalization Technology Footprint: Americas region dominates NetApp, Inc.'s global Technology total workforce landscape





Key Locations Deep dive: San Francisco Bay Area, United States, and Bengaluru Area, India, India contributes ~52% of the global Technology footprint of NetApp, Inc.









Application Development

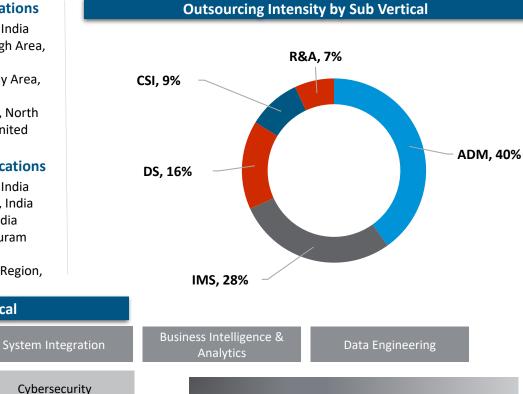
& Maintenance

Robotic Process

Automation



High



Medium

Source: DRAUP Outsourcing Module

Infrastructure

Management System

IT Risk Management

Provider Locations

Software Testing

UI/UX Design

India

Outsourcing Intensity by Micro Vertical

Cloud Computing

DevOps

Low

Application Development & Maintenance, Infrastructure Management Services, and Digital Services are the major outsourced segments, with ~84% of the total outsourcing workforce





Application Development & Maintenance

Associated Sub Verticals

Software Testing

Application Development & Maintenance

Key Engagements

- Review project documentation to understand the system and assure the quality of products and automated tests
- Develop Python script and user interfaces
- Work with Agile & scrum methodology
- Write effective scripts for requirements
- Write unit testing cases and documentation
- Use REST API and work with JSON and Time Library

Associated Service Providers









Infrastructure Management Services

Associated Sub Verticals

Infrastructure Management System

Data Engineering

IT Risk Management

Cybersecurity

Key Engagements

- Upgrade vCPU and Memory on VM servers Troubleshooting and fixing server-related issues
- Develop Data Stage jobs for Dimensions, Fact tables, and Sequence jobs
- Create extracting Source Transactional Database, transforming and then loading into Target Database
- Configure Active Directory, DNS, and DHCP on Windows

Associated Service Providers









Digital Services

Associated Sub Verticals

Cloud Computing

UI/UX Design

Robotic Process Automation

DevOps

Key Engagements

- Clarify incidents and analyze the feasibility
- Design and deploy AWS solutions
- Set up EC2 instances and prerequisite
- Track automation scripts with Git
- Manage working environments with Ansible
- Use AWS Services for Continuous Integration and Continuous Delivery

Associated Service Providers









Source: Above analysis is based on the DRAUP's Proprietary Outsourcing Module, updated in July 2023. The outsourcing details mentioned above are only some ongoing projects and are not exhaustive. Note: Outsourcing analysis is based on curation and analysis of deals data from various secondary sources followed by computation through Machine Learning models and manual effort. Deals are then tagged to Draup's Predefined Sub service segments, and HC estimation results from estimation models based on an aggregation of data collected from various secondary sources.

Consulting & System Integration, and Reporting & Analytics are the major outsourced segments, with ~16% of the total outsourcing workforce





Consulting & System Integration

Associated Sub Vertical

System Integration

Key Engagements

- Interact with clients for requirements and updates
- Set up a security model for the application
- Create profiles and implement object and field-level security
- Create page layouts and search layouts
- Develop Apex classes, Visual Force pages, Batch Apex, Triggers
- Customize page layouts for Opportunity, Contacts, and Accounts
- Use Data loader for data manipulation

Associated Service Providers





Key Engagements

- Analyse and Understand the Business Requirement Documents and build the relationships between the various data sets
- Perform data changes suitable for better modeling and visualization
- Execute reports and dashboards for data showing the business of different lines of business across different geographical locations for client
- Coordinate with the client in initiating technical reviews of the document
- Perform Editorial Reviews and formatting of Technical Reports/FAQ/White Paper

Associated Service Providers





Year of Joining: 2022

Previous Organization:



Experience:

Before joining Harvinder (Harv) Bhela served as Corporate Vice President, of Microsoft 365 Security, Compliance, and Management business at Microsoft.



Harvinder (Harv) Bhela **Executive Vice President and Chief Product Officer**

Year of Joining: 2018

Promotion Year: 2023

Experience:

Promoted as Chief Technology Officer | Automotive from Cloud Lead | Automotive.



Tilman Schroeder Chief Technology Officer | Automotive

Year of Joining: 2020

Promotion Year: 2021

Experience:

Promoted as Field Chief Technology Officer

from Principal Technologist.



Paul D. **Field Chief Technology Officer**

Year of Joining: 2021

Previous Organization:



Experience:

Before joining Vasanthi Ramesh served as Vice President - Profile and Personalization at Zalando SE.



Vasanthi Ramesh **Vice President of Engineering**

Year of Joining: 2022

Previous Organization:



Experience:

Before joining Hem Nerkar served as Vice President of eCommerce, Data, IDAM & Services at Pearson.



Hem Nerkar **Vice President - Enterprise Applications**

Year of Joining: 2007

Promotion Year: 2018

Experience:

Promoted as Vice President of Core Storage Engineering from Vice President & General Manager of Hyperscale Storage Group.



Eric Stoltman Vice President of Core Storage Engineering

Year of Joining: 2017

Promotion Year: 2019

Experience:

Promoted as Vice President of Core Storage Engineering from Chief Architect Data Fabric.



Eirikur (Eiki) Hrafnsson **Vice President of Cloud** Engineering

Year of Joining: 2000

Promotion Year: 2021

Experience:

Promoted as Vice President of Cloud Architecture from Senior Director of Cloud Solutions Engineering.



Richard Hardy Vice President of Cloud Architecture

Source: Draup Rolodex

Note: Executives mentioned above are some of the key Technology Leaders in the organization and are not exhaustive. The exhaustive list will be available on the Draup Platform.

By analyzing NetApp, Inc., DRAUP has identified the following Strategic Key Focus Areas; Hybrid Multi-cloud Environments Solutions is the key opportunity area for service providers



Key Focus Areas

Security Solution for Cloud Infrastructure

- NetApp's Spot Security delivers a solution for continuously assessing and analyzing cloud security posture and enables DevOps and SecOps teams to easily collaborate to identify misconfigurations, reduce their potential attack surface, and ensure compliance
- Spot Security's agentless technology analyzes cloud resource relationships to provide clear visibility and prioritized actions, automatically determining the prospective exposure of each cloud resource and surfacing critical security threats based on their potential impact on the organization
- Detect misconfigurations and anomalies to efficiently support the remediation of security and compliance risks across the multi-cloud infrastructure

Continuous Delivery Solution

- NetApp introduced Spot Ocean CD, a continuous delivery solution for Kubernetes to application delivery, reducing complexity and burdens for DevOps teams while connecting how applications are delivered with how they are operated in production to provide greater agility, reliability, and efficiency
- Using Ocean CD together with Spot Ocean and the rest of the Spot by NetApp portfolio of solutions enables organizations to optimize and scale the way deploy and operate cloudnative applications, simplifying and improving their application delivery and operations pipeline

Recommendation Area

Hybrid Multicloud Environments Solutions

- NetApp delivers portfolio innovations to address skyrocketing energy costs, heightened sustainability goals for global organizations and offers new ways for companies to monitor, manage, and optimize their carbon footprints across their hybrid, multi-cloud environments
- NetApp BlueXP delivers a unified experience across hybrid multi-cloud environments to bring all application and data storage services into a single control plane
- Scaling cloud storage independent of cloud computing to optimize costs, deploy new modern applications with the speed and scalability of the cloud, and maximize the value of their existing IT investments. Service Providers with rich expertise in these areas would find good opportunities to serve NetApp, Inc



Appendix



Application Development & Maintenance (ADM)		
Application Development	Defining, designing, and building applications tailored to meet client business requirements. Services include Solution development, safe application listing, application control, security, and risk mitigation.	
Testing Services	Software testing involves the execution of a software component or system component. It evaluates it against one or more properties of interest to ensure its smooth functioning and capability of seamless integration across various technologies. Services include Software testing, Mobile testing, Cloud-based testing, functional testing, engineering testing, user acceptance testing (UAT), non-functional testing, and Model testing.	
Application Modernization	Modernization services help modernize legacy systems to enhance flexibility, mitigate risk, minimize disruption, and lower costs. Application Rationalization, Re-hosting, application re-engineering, Field Remediation, Data migration, and Re-structuring of applications.	
Application Maintenance	Application Maintenance helps clients maintain the applications across application operations management, support, updations, and availability. Services include Proactive maintenance, TCO Reduction, Alignment with industry standards, corrective maintenance, SLA Management, and Knowledge management.	
Custom Application Development	Custom-build application development services for an end client.	
Mobile Services	Using Mobile medium by enterprises builds innovative mobile solutions to target customers by offering bundled services. End-to-end solutions and services to help companies capture insight from mobile devices to fuel innovation.	



Infrastructure Management Services (IMS)		
Server, Network, Desktop Management	IT Infrastructure Management Services (IMS) offers a suite of reliable, responsive, flexible, and proven infrastructure services and solutions that deliver differentiated value across the management of enterprise hardware components such as Servers, Networks, and Desktops. It aims to maintain and manage clients' IT applications and systems and ensure 24/7 availability.	
Datacenter Management	Design and management of data centers across heterogeneous platforms. Services include Server / OS management, Database Management, Middleware management, Storage and Backup management, Production Operations, Mainframe Services, Hosting, etc.	
Disaster Management	Use services and solutions to ensure a holistic, proactive, and technology-driven strategy for multi-disaster management. Services can be across enterprise data, backup, IT systems, real-time IT solutions, hardware monitoring, etc.	
Remote Infrastructure Management	Remotely managing information technology (IT) infrastructure such as workstations (desktops, laptops, notebooks, etc.), servers, network devices, storage devices, IT security devices, etc., of a company.	
High-End Technical Support	High-level product and services support provided by qualified engineers. Tech support services, Remote Diagnostic Services, Set-up and Configuration, Patch Management, Service pack and Database Upgrades, Warranty Management/RMA, and Engineer Dispatch Management.	



Consulting & System Integration (CSI)	
Advisory Services	Consulting and advisory services enable an organization across business process transformation to improve performance, increase effectiveness, reduce costs, and improve resilience. Services mainly involve business advisory, business and functional change, IT consulting, and risk and compliance services.
Package Software Consulting	IT Consulting and Advisory services across enterprise-level package software solutions. Services to evaluate which package solutions would solve an enterprise-wide work area and assess its integration capabilities across the current application stack used by an organization.
System Integration Services	Integrate, implement, or deploy software solutions/hardware for an enterprise. It ensures proper functioning in line with its integration with various other solutions or hardware currently used by the enterprise. Services include Cloud Integration, Data Integration, EAI (enterprise application integration), Integrated Communication, Network Integration, Integrated Security Software, Service-oriented architecture, etc.
Application Portfolio Optimization	Application Portfolio Optimization services help companies ensure that their IT projects, applications, and infrastructure provide cost-effective benefits to the organization. The aim is to identify disparate applications and secure ways to integrate them into a core enterprise solution. Services include mapping applications to business functions and their importance, cost-management analysis, and dependency mapping of an application.



Reporting & Analytics	
Reporting & Dashboard	Applications enable tracking and monitoring of the health of an organization or department by reporting on certain KPIs, business metrics, and analytics. Reporting & dashboards are majorly used to summarize information, thereby providing a glance into an enterprise's business performance.
BI / Analytics	BI / Analytics encompasses various tools, applications, and methodologies that enable organizations to collect data from internal systems and external sources, prepare it for analysis, and develop and run queries against the data. It allows the discovery, interpretation, and communication of meaningful patterns in data to help relevant stakeholders to make more informed business decisions.
Data Quality	Data Quality services enable clean, trusted data to ensure enterprises meet their projects and business objectives. Such applications and services enable effective data extraction, transformation, loading, and superior data management.

Digital Services	
Social	End-to-end solutions and services help companies capture insights from social media engagements to fuel innovation.
Advanced Analytics	High-end Advance Analytics solutions are being leveraged, enabling an organization to analyze customer data and allow Predictive and Prescriptive analysis. Such solutions can be SAS Analytics, SAP, etc.
Internet-of-Things (IoT)	Solutions and platforms enable an enterprise to transfer and run data over a network through a web of interconnected devices and technologies such as mobile, sensors, databases, CRM, etc.
Machine Learning (ML) / Cognitive Computing (CC) / Artificial Intelligence (AI)	Use an enterprise's Artificial Intelligence solutions and services to solve a particular business function. An example might be the use of IBM Watson. It also includes Enterprises leveraging solutions that study various patterns and computational learning and processes a particular task based on identifying a specific way. Enables a specific job to be done without any human intervention.
Robotics Process Automation (RPA)	Robotic process automation (RPA) is the application of technology that allows employees in a company to configure computer software or a "robot" to capture and interpret existing applications for processing a transaction, manipulating data, triggering responses, and communicating with other digital systems automatically.

Note: Above analysis is based on the DRAUP's Proprietary Services Module, updated in July 2023.

