Periscope

Claritus Newsletter

Issue 6.0 | June 2024

What's Inside

Director's Column

Mmaneesh Batra

Dear Readers!

As the digital landscape continues its relentless evolution, the need for robust security solutions has never been more paramount. In this June edition of Periscope, we delve into the ever-changing realms of AI and cloud security, equipping you with the knowledge and tools to navigate this dynamic terrain with confidence.

The dawn of 2024 heralds an era where artificial intelligence and cloud computing are not just tools, but the very backbone of innovation and efficiency. At Claritus, we are at the forefront of this digital revolution, committed to ensuring that these powerful technologies are secure, robust, and trustworthy. I am thrilled to welcome you to the June edition of Periscope, Claritus' monthly newsletter.

The Rise of the Machines: AI Security in 2024

Artificial intelligence is no longer a futuristic fantasy; it's a potent force shaping our world. While AI offers immense potential, its integration into our systems necessitates a paradigm shift in security strategies. At Claritus, we're at the forefront of developing cutting-edge solutions that leverage the power of AI to proactively identify and mitigate threats before they wreak havoc.

Fortress in the Cloud: Cloud Security in the New Era

Cloud computing has revolutionized the way we store and access data. However, this convenience comes with inherent vulnerabilities. As cyberattacks become more sophisticated, ensuring the impregnability of your cloud infrastructure is critical. Here at Claritus, we offer a comprehensive suite of cloud security solutions designed to safeguard your valuable assets in the boundless expanse of the digital ether.

I invite you to connect with us and explore our extensive range of AI and cloud security solutions. Our solutions are designed to empower your organization with the highest level of security and efficiency. Whether you are a client seeking tailored solutions, a partner looking to collaborate, or an employee eager to stay updated with the latest advancements, Claritus is your gateway to innovation and excellence.

Regards!

Who We Are

580+ Clients | 280+ Highly Skilled Team | Pan India Presence

Since 16+ years, Claritus has been creating solutions that not only solve problems but make long-term impacts on your business. We combine proven methodologies to create memorable experiences for our clients, across the globe. We are committed to delivering value through our cutting-edge solutions and outstanding customer service.

We strongly believe in

Clarity: strive for clarity in our strategy coupled with transparency in our execution

Innovation: Riding on the continuous evolution of technology

Technology: We live and breathe technology and 'think digital' is at the core of every solution we offer

Our Business Verticals

- **Digital Transformation** – Blockchain | Power Platform
- **Welkin** – Cloud | Licensing
- **Upsurge** – Talent Acquisition | Staff Augmentation
- **Government** - Licensing

Our Online Store: www.claritus.store

Copilot

Introducing AI enhanced
Copilot + PCs

Microsoft has announced **'Team Copilot'**, an **expansion of Copilot for Microsoft 365** from 'a personal assistant to act as a valuable team member', improving collaboration and project management.

Copilot+ PCs are the fastest, most intelligent Windows PCs ever built, enabling you to do things you can't on any other PC. Easily find and remember what you have seen in your PC with Recall, generate and refine AI images in near real-time directly on the device using Cocreator, and bridge language barriers with Live Captions, translating audio from 40+ languages into English.

Watch Video: https://youtu.be/5JmkWJNng2I

Entirely new, powerful AI experiences
Copilot+ PCs leverage powerful processors and multiple state-of-the-art AI models, to unlock a new set of experiences you can run locally, directly on the device. This removes previous limitations on things like latency, cost and even privacy to help you be more productive, creative and communicate more effectively.

Recall instantly
One of the most frustrating problems we all encounter daily – finding something we know we have seen before on our PC. Now with feature **'Recall'**, **in preview starting June 18**, one can access virtually what was seen or done on the PC in a way that feels like having photographic memory. Copilot+ PCs organize information like we do – based on relationships and associations unique to each of our individual experiences. You can scroll across time to find the content you need in your timeline across any application, website, document, or more.

Watch Demo: https://youtu.be/maC9iZMaAlM

Cocreate with AI-powered image creation and editing, built into Windows

Combine your ink strokes with text prompts to generate new images in nearly real time with **Cocreator**, **another feature in Copilot + PC**. As you iterate, so does the artwork, helping you more easily refine, edit and evolve your ideas. Powerful diffusion-based algorithms optimize for the highest quality output over minimum steps to make it feel like you are creating alongside AI.

Watch Demo: https://youtu.be/dEd3YbCeXYk
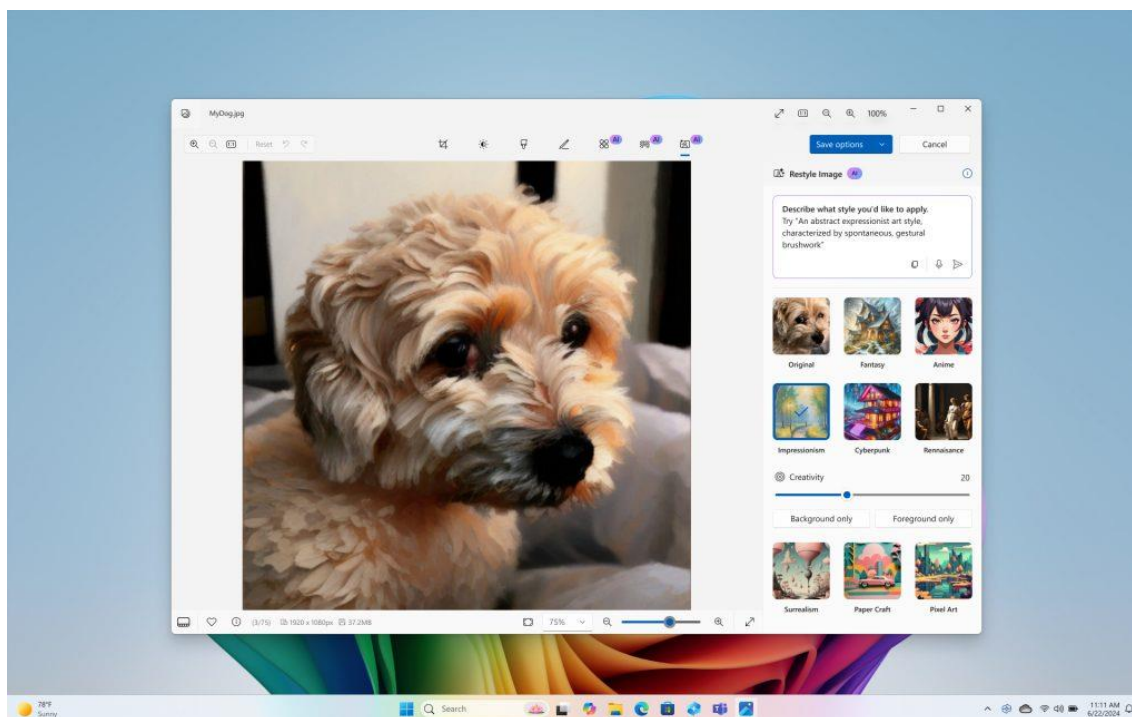
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Microsoft Team Copilot features

1. **Meeting Facilitator:** Copilot Team enables a more productive discussion in meetings by managing the agenda and taking notes anyone in the meeting can coauthor.
2. **Group Collaborator:** It will also help everyone in the team get more out of chats, surfacing the most important information, tracking action items and addressing unresolved issues.
3. **Project Manager:** Thirdly, Team Copilot is able to run every project smoothly by creating and assigning tasks, tackling deadlines, and notifying team members when their input is needed.

Beyond the Blue: Decoding the Future of Global Cloud Security

The **global cloud security market** surged from **USD 31.90 billion in 2023 to USD 36.08 billion in 2024**, and is projected to balloon to a staggering **USD 109.35 billion by 2033**. This explosive growth, fueled by a **robust CAGR of 13.11%,** is driven by the ever-increasing security threats accompanying rapid digitalization across industries. As businesses embrace digital transformation, the need for robust cybersecurity solutions to safeguard their cloud infrastructure becomes paramount.

CLOUD SECURITY MARKET SIZE 2023 TO 2033 (USD BILLION)

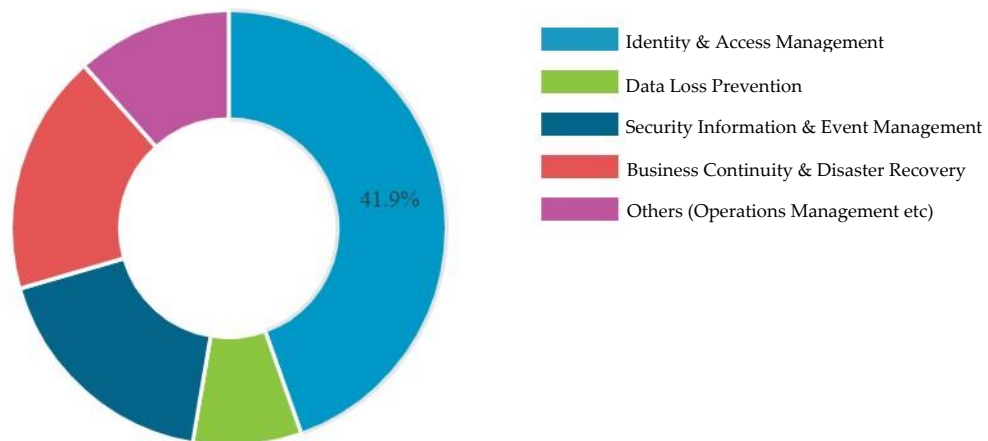| Year	Value
2023	$ 31.90
2024	$ 36.08
2025	$ 40.81
2026	$ 46.16
2027	$ 52.21
2028	$ 59.06
2029	$ 66.80
2030	$ 75.56
2031	$ 85.47
2032	$ 96.67
2033	$ 109.35

Asia Pacific will witness significant growth in the cloud security market over the foreseeable period, driven by rapid **digital transformation** and **increasing cloud adoption** across various industries. Countries such as India, Japan, and South Korea are witnessing significant investments in cloud infrastructure and services, which in turn boosts the demand for advanced cloud security solutions. The region's small and medium-sized enterprises (SMEs) are also increasingly leveraging cloud technologies to enhance operational efficiency and competitiveness, further propelling market growth.

Cloud Security Market Overview

The cloud security market is experiencing rapid growth, driven by the widespread adoption of cloud services across diverse industries. As businesses migrate to cloud platforms for enhanced scalability, cost efficiency, and remote work capabilities, the demand for robust security solutions to protect sensitive data and applications intensifies. Key factors fueling this growth include the rise in cyber threats, stringent regulatory compliance requirements, and the critical need to safeguard data from breaches. Cloud security solutions encompass a range of services, including identity and access management, data encryption, threat detection, and compliance management.

Cloud Security Market Growth Factors

- Businesses of all sizes are migrating to cloud platforms for better flexibility and scalability.
- The growing frequency and sophistication of cyber-attacks drive the need for robust cloud security measures.
- Heightened awareness around data privacy and protection fuels investment in cloud security.
- Innovations in AI and machine learning enhance threat detection and response capabilities.
- Small and medium enterprises are increasingly investing in cloud security as they adopt cloud.

Legend:
- Identity & Access Management
- Data Loss Prevention
- Security Information & Event Management
- Business Continuity & Disaster Recovery
- Others (Operations Management etc)

41.9%

Cloud Security Marketing Dynamics

- **Driver**: **Cloud computing solutions -** Increased adoption of cloud computing solutions and services can be the major driver of the cloud security market. As the digitalization of work becomes an essential part of enterprises, many enterprises invest in cloud platforms, which help improve the scalability, flexibility, and cost-effectiveness of operations. Due to the rising adoption of digital platforms, they encounter new security cyber threats by unauthorized access attempts by hackers.

- **Restraint: Substantial budget for maintenance -** A major restraint for the cloud security market is the high cost and complexity of implementing and managing advanced security solutions. Cloud security is essential for protecting sensitive data and maintaining compliance. The financial burden can be significant, particularly for small and medium-sized enterprises (SMEs) with limited budgets.

- **Opportunity: Incorporation of AI and ML -** One significant opportunity in the cloud security market is the growing demand for artificial intelligence (AI) and machine learning (ML) based security solutions. As cyber threats become increasingly sophisticated thus traditional security measures often fall short. AI and ML technologies can enhance threat detection, predict potential vulnerabilities, and automate responses, providing more proactive and efficient security.

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Fortress of AI: Building a Secure Future with Intelligent Defense

Envision entering a realm where the digital beings you've crafted possess the ability to ponder, absorb knowledge, and adapt over time. Now imagine if those intelligent entities were under constant threat. That's the reality of today's AI-driven landscape. AI security considerations protecting ai systems from attacks have never been more critical.

In this rapidly advancing digital age, the tug-of-war between protectors of our virtual fortresses and cyber intruders accelerates with each passing moment. Every day presents a new challenge: data breaches waiting to happen or sophisticated malware aiming to corrupt AI integrity. And let's not forget about data poisoning—a method that turns an AI system against itself by tweaking its learning process.

Understanding AI Security and Its Importance

Dive headfirst into the digital age's vanguard, where AI transcends being mere jargon to become a transformative power redefining our existence. But let's not forget, with great power comes great responsibility—enter AI security.

- **State of AI in the Cloud 2024**: In 2024 and further ahead, we're looking at an ecosystem where AI platforms face threats, vulnerabilities, and risks that could compromise their integrity. Think about it; your data chilling in the cloud sounds cool until someone decides to crash the party uninvited.

- **Will AI Replace Cybersecurity? A question on many minds:** Will robots take over cybersecurity jobs? Not quite. Instead, think of them as Batman's Robin—a sidekick enhancing our cyber defenses rather than replacing us. Machine learning tools are getting better at sniffing out anomalies faster than any human can say "cyber threat." Envision entering a realm where the digital beings you've crafted possess the ability to ponder, absorb knowledge, and adapt over time. Now imagine if those intelligent entities were under constant threat. That's the reality of today's AI-driven landscape. AI security considerations protecting ai systems from attacks have never been more critical.

- **(Un)Security of Artificial Intelligence:** This might sting a bit—while we've been busy advancing tech marvels like smart assistants or fraud detection systems powered by AI; threat actors have been equally busy figuring out how to exploit these innovations. Here lies an unsettling truth: The smarter our toys get, the trickier it becomes to keep them safe from those who play dirty.
- **Higher likelihood of data breaches and leaks:** Data is gold, and everyone knows it—especially hackers. With AI systems churning through massive amounts of information, there's a buffet of sensitive data that could end up in the wrong hands if we're not careful.

What Claritus can do for your Organizationt to tackle AI Threats

- **Regular Security Audits:** We will conduct regular security audits of your AI infrastructure to identify vulnerabilities and weaknesses. Collaborate with AI security experts to ensure comprehensive protection.
- **We shall urge you to Invest in AI-Specific Security**: Recognizing that AI requires specialized security measures, we will craft tailored solutions to safeguard your AI systems effectively.
- **Train Your Team**: We can train your cybersecurity professionals to equip them with the knowledge and skills needed to defend against AI-specific threats.

The threats are real; data breaches and poisoned algorithms aren't just plot points but challenges we face daily in securing our artificial counterparts. In every tale of valor, amidst the shadows of challenge, a chance for creativity and strengthening our virtual landscapes emerges.

Our teams have waded through murky waters of vulnerability to find clarity in protection strategies: isolation reviews, input sanitization, even leveraging AI itself for cybersecurity prowess. **We don't merely let you adjust; we help transform, emerge your organization out to be more intelligent and resilient than ever. And as far as accomplishments go? Securing your future feels pretty top-tier.**

www.claritusconsulting.com
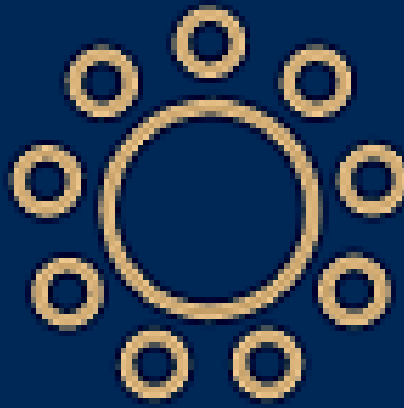
Our Wins

" Settle It Your Way: The Legally Valid, Tailor-Made Dispute Whisperer!”

Our client, **a leading Corporate law firm exuberating foresight, expertise and innovation** at the core of everything they do. With more than **850 lawyers, six pan-India locations**, they are India's largest full-service law firm, staying ahead of the curve with our ability to provide future-focussed end-to-end solutions, through both domestic and international collaborations.

The Challenge faced

- **Covid-19 Pandemic:** Moving the Arbitration processes online was necessary due to Covid restrictions. The developed arbitration application was required to reside/host on a Cloud Platform that was secure, reliable and highly available.

- **Security & Compliance:** GDPR Compliant infrastructure along with controlled access to the environment was required. Due to complexity and confidentiality of the Arbitration process, best in class security implementation was needed too.

- **Data Protection & DR:** Lacked management, segregation & accessibility of the Firm's highly confidential data. No Business Continuity & Disaster Recovery plans were in place.

- **Managebility**: Centralized environment and manageability were one of the priorities.

Our custom-fit, legally-approved solution, which turned disputes into high-fives!

- **Managed Application Hosting: Azure App Service** delivered a fully managed web application hosting platform. Provided Infrastructure and platform security. Delivered layered security like multi-factor authentication to access the application. **Automatic High Availability & Auto-Scaling was delivered.**

- **Delivery Gateway: Azure Front Door** delivered a global, scalable entry-point that used Microsoft global edge network to create fast, secure, and widely scalable web applications. **Azure Front Door** transformed the arbitration process into a robust & high-performing personalized modern application.

Azure Application Gateway acted as a load balancer that enabled the Client managing the traffic to their arbitration application.

- **Managed Database**: **Azure SQL Database** handled most of the database management functions such as upgrading, patching, backups, and monitoring without user involvement. It always ran on latest stable versions of the **SQL Server DB engine and patched OS ensuring 99.99% availability**.

- **Disaster recovery**: **Azure Site Recovery** facilitated a secondary site setup as a DR site in a different region. Data replication was enabled from primary to secondary to ensure the best RTO's and RPO's.

- **Security and Monitoring**: **Azure monitor** delivered monitoring of the infra & **Azure Key Vault** stored the encrypted keys ensuring additional security. Application insights provided application analytics and performance. Identity and Access management was achieved using **Azure AD**.

- **Advisory**: **Azure Advisor** offers actionable recommendations to help you optimize your **Azure resources** for reliability, security, operational excellence, performance, and cost.

The Outcome

- End to end fully **managed application hosting** delivered. Enabled client to focus on growing their line of business while Azure took care of the infrastructure hosting service.

- **High Availability & Auto-Scaling** of the Application enabled the Firm to focus on their arbitration processes.

- A single, flexible solution for **comprehensive management** was delivered

- The deployed Azure Services ensured **GDPR, ISO** and **PCI compliances.**

- **No server maintenance** was required.

- Enhanced visibility over the deployed **application's analytics.**

- The **Disaster Recovery setup** always ensured the availability of the Infra.

- Built-in **intelligent security** was served.

Faster diagnoses,
Smarter machines.

" Machine learning meets medicine: The future of medical imaging analysis"

Our client offers cutting-edge and cost-effective software solutions tailored for the healthcare industry. They specialize in developing state-of-the-art systems to automate medical imaging procedures having the primary focus on innovating software solutions specifically for Medical Imaging and Telehealth. Their portfolio includes innovative software solutions designed for both invasive and non-invasive diagnostic procedures.

The Challenge

- The Client Azure infrastructure lacked Scaling, which was essential for accommodating high traffic volumes and ensuring High Availability.
- Their platform consisted three applications hosted on an Azure Windows Virtual Machine (VM) and a Database VM utilizing SQL Standard Edition.
- The client wanted the access to the infrastructure should be governed by role-based control. Access to the infrastructure must be restricted to authorized users only.
- There should be a centralized environment to facilitate ease of management. The implementation of the proposed solution should not alter the current user experience.

Our Custom Tailored Solution

- We **documented and reviewed their architecture** of the applications and databases. Subsequently, a suitable **cloud-based solution using Azure services was designed**.
- An **Azure subscription** for the project **was established**, and the necessary consent and user permissions were obtained from stakeholders.
- A **virtual network (V-Net) in Azure** was created and divided into subnets for different purposes. **Network security groups (NSGs)** were set up to control inbound and outbound traffic to and from the subnets.

- **Azure DNS** was configured to manage the domain names for the applications. A l**oad balancer** was **implemented** to distribute traffic among the backend servers, ensuring high availability and scalability. Health probes and rules for the load balancer were also configured.

The setup was validated to ensure the project met the objectives and expectations. Load testing was performed, and metrics and logs of the Azure services were monitored. Any issues or errors that arose during testing were identified and resolved.

The Outcome

- **Efficient Subscription Management and Governance:** Established a robust governance framework with Azure subscriptions, resource groups, roles, and access management, enhancing resource oversight and compliance.
- **Robust Network Architecture:** Delivered a secure virtual network (V-Net) with subnets and network security groups (NSGs) to effectively manage and protect network traffic.
- **Optimized Traffic Management**: Deployed application gateway and load balancer efficiently routed and distributed traffic, ensuring high availability and performance.
- **Enhanced Security and Compliance**: Utilizing Azure Active Directory, Application Gateway WAF, Azure Security Center, and Azure Key Vault enforced strong security policies and compliance measures, protecting data integrity and access.
- **Scalable and Resilient Infrastructure**: Leveraging virtual machines (VMs) and virtual machine scale sets (VMSS) automated scaling, providing a flexible and cost-effective infrastructure.
- **Seamless Database Migration and Management**: Databases to Azure SQL server VMs were migrated, ensuring secure, efficient operations with network service endpoints and private endpoints.
- **Increased Operational Efficiency**: Operations were streamlined, downtimes were reduced, and scalability was enhanced, aligning the solution with organizational growth and innovation.

Mandala Law Offices

"Secure remote desktop experience – from virtually anywhere"

Our client, **a renowned Corporate law firm** focussed on banking, financial services, and M&A, specialises in disputes and regulatory practice area to offer wide array of services. They have an unmatched combination of academic pedigree, technical skills and an ahead of the curve mindset, allowing them to deliver practical solutions to their clients in an ever-changing market.

The Challenge

- **Infra-level Security**: Lacked protection from the external threats. Access rights/permissions were not present at individual/group level. No restrictions for using/limiting usage of USB/hard drives/any cloud storages/cell phones. Deploying security at desktop level without effective use of technology was difficult.

- **Centralised Management**: The client wanted to manage and provide access to their users to office applications and emails from a centralized environment. Also, that the users should be able to communicate and collaborate with each other.

- **Data & Security Compliance**: Data resided locally on laptops; thus, it was difficult to manage and restrict the access to confidential data.

The Solution Portfolio

- **Azure Virtual Desktop**: Delivered secure access to apps, data and services from any device with the **Microsoft Azure Virtual Desktop**. Solution was Optimized to meet the performance, security and mobility requirements of everyone, with instant access to personalized desktops, mobile, web, and Windows apps, data and services over any network.
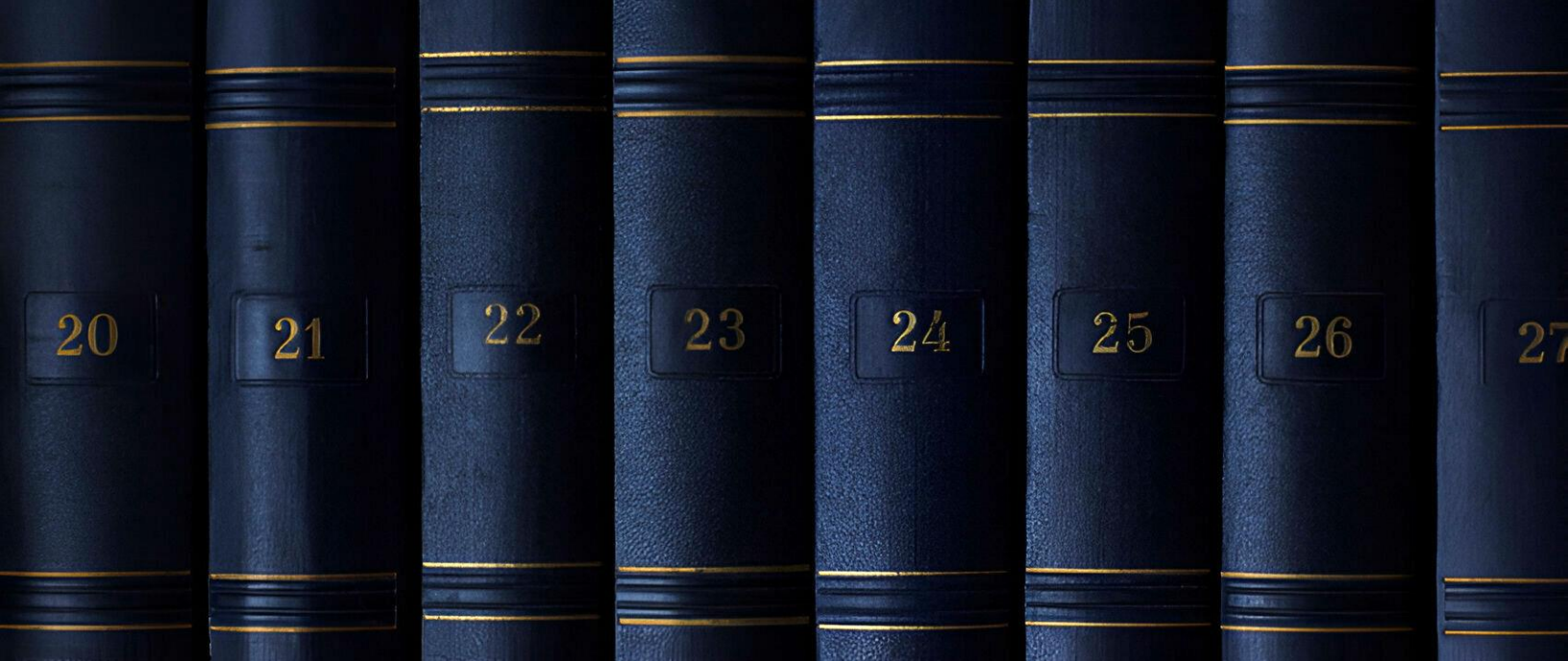
- **Document Management System**: **Share Point** was deployed as a **document management system** for Storing documents. It facilitated collaboration anytime, from anywhere, on desktop or mobile. Organizing documents was made much easier. Multiple users were able to edit a file at the same time. Client Lawyers and their partners were able to pull data from other applications based on the access that was provided to their lawyers.

- **Microsoft Intune:** All the Company/User owned devices were registered with Azure AD and then were enrolled with **Microsoft Intune**. Group policies on OUs from DC were pushed. **MDM** and **MAM** Security Policies were deployed and based on the Clients approved and non-approved apps and web URLs. All the devices and apps are **centrally manageable** and are **compliant** was made sure.

- **Microsoft Teams:** Was setup for the Firm as a hub for teamwork, which brought together everything the team needed from chat and threaded conversations, meetings & video conferencing, calling, content collaboration.

The Outcome

- Improved employee productivity with instant access to apps, data and desktops.
- A high-performance user experience on any network was delivered.
- Empowered workforce mobility with self-service access to corporate resources
- Enterprise content in the cloud and on any device was delivered.
- A single, flexible solution for comprehensive management was provided.
- Windows server on any device and from anywhere was delivered.
- Built-in intelligent security was served.
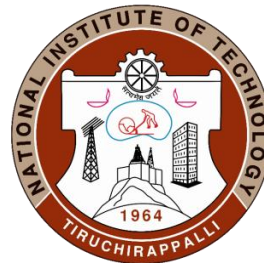- Reduced cost using existing licenses.

We create solutions that make our clients' smiles shine!

Shardul Amarchand Mangaldas

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NHPC

Mandalā
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