

CONNECT

MAGAZINE

JAN '25

**The future is not something we enter.
The future is something we create.**

- Leonard I. Sweet

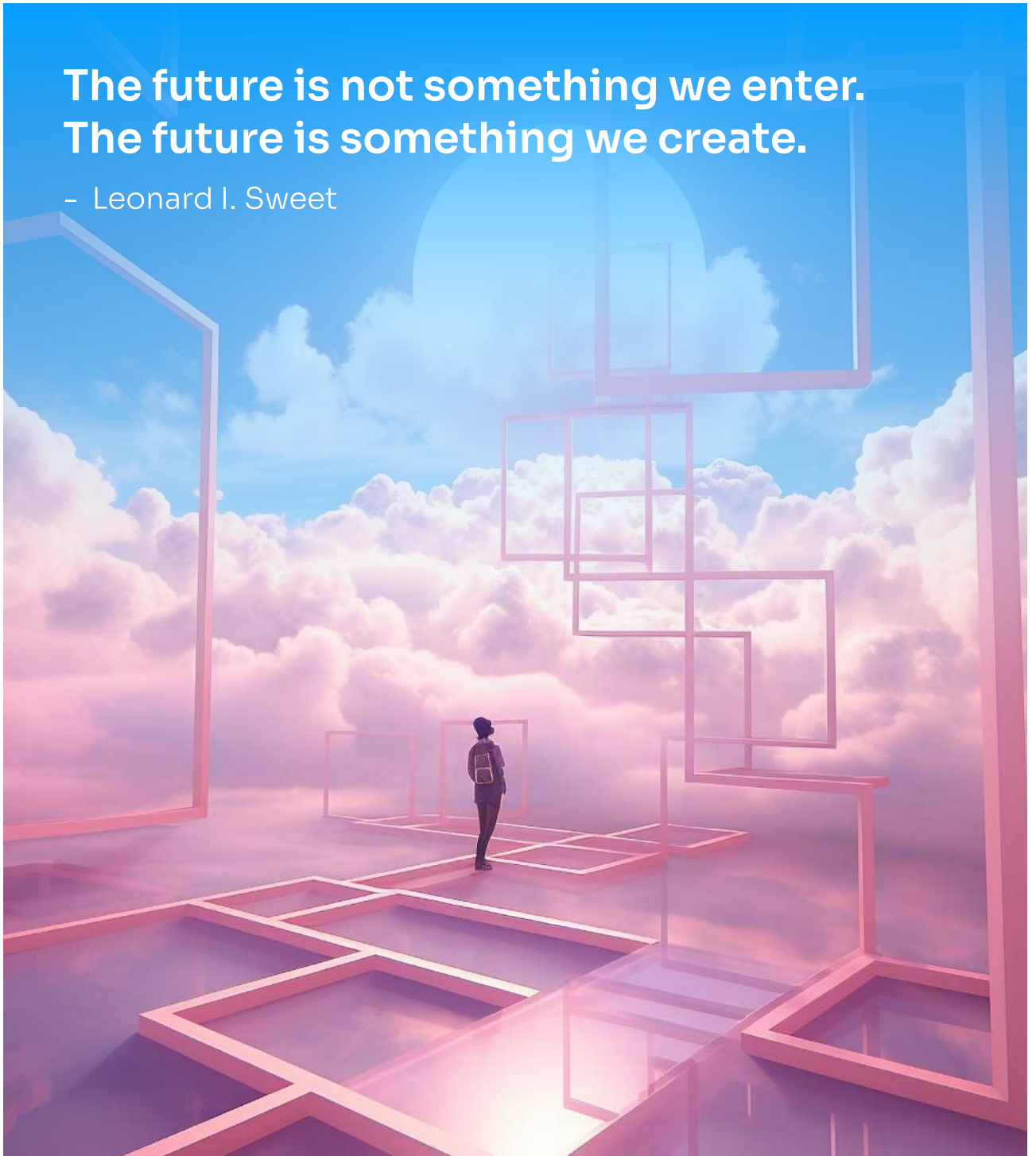


Table Of Content

Editor's Note

04

What's New in Tech

05

Leader's Perspective

06

**Navigating the AI Revolution
in the Workplace**

Sangeeta Malkhede

07

**Enhance Your
Digital Experience with ZIF Dx+**

Maryada Kashyap & Nithesh Kumar

09

**Crypto Derivatives in
Decentralised Exchanges**

Jathiswar Bhaskar

13

**Reversing the Data-Rich,
Information-Poor Paradox**

Namita Balwalli

17

**The Evolving Role of
Designers as Advisors**

Manisha Deshpande

19

**Leveraging Zero Trust SASE Architecture
to Strengthen Cybersecurity in Healthcare**

Ayyanar Govindaraj

22

Editor's Note

2025 is the year we'll witness the beginning of a seismic shift in how we work. Forget simply using AI as a tool—we're talking about building entire organizations around the partnership of humans and AI. This is a change as significant as the development of the assembly line or the internet.

Until now, AI's impact on organizations has been limited to certain areas. Sure, we've all embraced AI assistants for writing emails or summarizing reports, but that's just scratching the surface. The real revolution begins when AI becomes the core of how we design and run our businesses.

Soon, forward-thinking companies will redefine their entire approach to business. They will no longer treat AI as a simple automation tool but will weave it into the very fabric of their structures, processes, and cultures. The key isn't just to automate tasks or assist employees; it's about creating new, innovative ways of working that capitalize on the strengths of both humans and AI.

We're already seeing the early stages of this shift, particularly among startups. Many are building their operational models around the concept of human-AI collaboration from the ground up. Soon, "AI-native" startups will emerge, built from the ground up with human-AI collaboration at their core.

For organizations of all sizes, the key to AI's success lies in democratizing its use across all departments. The most significant breakthroughs will come not from the IT department, but from the employees who interact with AI in their day-to-day tasks. Managers and employees across functions will uncover opportunities to use AI in novel ways, creating immense value in the process. In this new world, traditional corporate hierarchies may give way to more flexible, project-based structures.

The challenge lies in understanding the 'behavioral' impact of AI in the workplace. How do we train and reskill our workforce? How do we manage this new human-AI partnership? These are questions organizations will need to answer.

One thing is certain: the companies that thrive in this new era won't be the ones with the fanciest AI. They'll be the ones who can master the art of human-AI collaboration, unlocking new levels of creativity, productivity, and value.

Sangeeta Malkhede, Global Head of HR, GS Lab | GAVS, shares some insights around this in her article, **“Navigating the AI Revolution in the Workplace”**.

We also have five other insightful articles lined up in this edition.

Happy Reading!

Soumika
Das



What's **New** in Tech



01

AI Improves Diagnosis of REM Sleep Behavior Disorder

Researchers have developed an AI algorithm that analyzes sleep test videos to more accurately diagnose REM sleep behavior disorder (RBD). RBD involves acting out dreams during REM sleep and is often an early indicator of Parkinson's disease or dementia.



02

AI Slashes Chip Design Time and Cost

Researchers have developed an AI system that can design complex microchips for wireless technology in a fraction of the time it takes human engineers. Interestingly, the AI generates unconventional chip designs with unique and unexpected circuit patterns.



03

AI "MovieNet" Mimics the Brain to Understand Videos

Scientists have developed MovieNet, an AI that processes videos like the human brain, recognizing complex scenes as they unfold. This breakthrough could revolutionize fields like autonomous driving and medical diagnostics by enabling AI to better understand dynamic visual information.



04

Robots in Nursing Homes Boost Jobs and Quality of Care

A new study found that using robots in nursing homes actually increased employment and improved employee retention. This, along with increased productivity and quality of care, challenges the notion that robots will replace human care workers.

Leader's Perspectives

Prediction from Last Year

CISOs would restrict employees from exploring Gen AI, and private LLMs would flood the market to appease them.

One Year Later

Unfortunately, this prediction holds. Gen AI evangelists, CISOs, and managers haven't empowered users enough to explore its true potential.

Developers, Are We Missing Out?

Tools today can

- Deliver defect-free, efficient, secure code
- Automate functional, performance, and security testing. But many developers aren't embracing these tools. Why?

The Reality of Innovation

New technologies abound, but only the ones we actively use and integrate will survive. If Gen AI isn't supported by CISOs or adopted by developers, its potential could fade into oblivion.

Call to Action

Let's not let Gen AI be a missed opportunity. Empower employees, embrace innovation, and push for change. The future depends on how we act today!

Chandra Mouleswaran Sundaram

SVP & Head,
IP and Infra,
GS Lab | GAVS





Navigating the AI Revolution in the Workplace

As AI continues to shape the future of work, it's becoming an integral part of how we operate and innovate. At GS Lab | GAVS, AI is being leveraged to enhance the way we perform our roles, making us more efficient, precise, and capable of delivering greater value to our customers. The inclusion of AI in our workplace opens new opportunities to play our roles better and more effectively. But how we apply AI to improve our work and deliver even more impactful results is entirely in our hands. The success of this integration depends on how we embrace these changes and creatively use AI to bring more value to the organization as a whole.

As AI becomes more embedded into the workplace, it's natural for employees to have a range of reactions. These varied reactions are a normal part of any change process, and it's important that we acknowledge them as we navigate this shift together.

The spectrum of reactions to AI adoption spans from enthusiasm to resistance. Many employees will likely feel a sense of enthusiasm and curiosity, eager to explore the potential of AI to make their

work easier and more impactful. These team members are keen to understand how AI can help them perform tasks more efficiently or open up new opportunities for innovation. On the other end of the spectrum, there may be those who feel apprehensive or anxious about AI's impact on their roles. They may be concerned about the changing nature of their roles. Finally, there will inevitably be some skepticism and resistance, with employees questioning the true benefits of AI or fearing the unknown.

As leaders, it's our responsibility to guide our teams through these reactions and ensure that the integration of AI is seen as a positive development. At our company, we believe in fostering a culture of open communication. From our leadership team to individual managers, we are actively discussing the positive impact AI will have on our work and the value we deliver. We encourage employees to voice any anxieties or doubts they may have, ensuring that their concerns are addressed and that everyone feels supported during this transition. Our CEO has provided us with a clear vision for AI integration,

and we are fully committed to realizing that vision.

In addition to communication, providing support and training is key to ensuring that employees feel equipped to thrive in an AI-driven workplace. We are actively working to equip our employees with the necessary skills and knowledge through various courses and certifications. Our goal is to empower everyone to confidently embrace AI and leverage its potential.

Successful AI integration relies on a collaborative approach. We encourage our employees to view AI as a teammate, working in synergy to achieve common goals. Just as with any new tool, it's important to understand both the advantages and disadvantages of AI, focusing on how we can harness its strengths to enhance our work. We are actively working with managers, colleagues, and our learning and development team to identify opportunities where AI can boost productivity and increase job satisfaction. By automating routine tasks, AI can free up our time and energy, allowing us to focus on more strategic and fulfilling aspects of our work.

In this era of rapid technological advancement, it's crucial to maintain a growth mindset. We must be willing to learn, adapt, and stay ahead of the curve. By embracing AI and proactively seeking ways to integrate it into our workflows, we can unlock new levels of productivity, creativity, and success. Together, we can shape a future where AI is not just a tool, but a powerful partner in delivering exceptional results.

About the Author

A senior HR leader with strong convictions, values, and experiences, Sangeeta has an innovative approach towards HR practice and in her previous leadership roles she drove overall HR to enable Culture of Performance, Building Leadership Talent, Organization Effectiveness, Change Management and Employee Engagement etc.

Sangeeta is an avid reader and a keen observer of human behavior. She enjoys playing & following Badminton, Tennis and Cricket, has a passion for cooking, travelling and hydroponic farming.





Enhance Your Digital Experience with ZIF Dx+

In today's rapidly evolving digital world, user experience is crucial. Whether employees are using essential applications or customers are engaging with your services, the quality of their digital experience significantly influences both satisfaction and productivity. This is where ZIF Dx+ steps in as a powerful ally, positioning itself as one of the best digital experience platforms. ZIF Dx+ is not just a tool, but a strategic asset for IT leaders. It delivers a holistic view of your organization's digital ecosystem, offering valuable insights into how your IT infrastructure directly influences the digital experiences of your users.

Grasping the Big Picture

ZIF Dx+ equips IT executives with valuable insights into how interactions with IT solutions, applications, and services shape the overall digital experience. This strategic understanding enables leaders to make well-informed decisions regarding IT investments and strategies. By analyzing patterns, trends, and identifying areas for improvement within your IT infrastructure, ZIF

Dx+ helps you address current issues and predict future challenges, optimizing the digital experience for your workforce.

ZIF Dx+ Highlights

01 Continuous and Effortless Availability and Performance Monitoring

This phase begins with collaboration among business users, data scientists, and IT teams. Through discovery workshops, viable AI/ML use cases are identified. Pilot projects are then launched using real data to forecast potential success and refine implementation strategies. The phase also includes developing a tailored MLOps strategy and conducting a comprehensive risk assessment to align

- Instantly set up application monitoring for immediate insights that enhance performance. Quickly gain visibility into the health of your web and various applications, allowing you to identify how factors like performance, availability, and errors, impact the user experience.

- Employ adaptive, multidimensional baselines that automatically adjust according to real users' locations, devices, and browsers, ensuring accurate anomaly detection.
- Enhance your IT Health Vitals to keep your applications competitive and consistently align with your Service Level Objectives (SLOs).
- Ensure uninterrupted service by monitoring application availability globally, 24/7, guaranteeing that your digital services are always accessible.

02 In-depth User Journey Analysis

ZIF Dx+ empowers you to map out and improve user journeys by providing deep insights into how customers interact with your services. By discovering patterns and potential pain points, you can enhance the user experience across all channels, ensuring a seamless and satisfying journey from start to finish.

- Rapidly assess the impact of issues on users across all applications, with a full view from front-end to back-end. This holistic perspective ensures you understand how problems affect the overall user experience.
- Leverage AI-driven root cause analysis that identifies causal relationships, enabling swift and effective remediation.
- Dive deep into hidden issues that are often missed, uncovering subtle errors that can negatively affect business outcomes.

03 Streamlined User Issue Resolution

ZIF Dx+ helps you quickly address and resolve issues by providing a comprehensive view of the problem's context. This feature streamlines the support process, ensuring that complaints are handled efficiently and to the satisfaction of the users.

- Enhance release quality and maintain service reliability with ZIF Dx+ by proactively managing customer-facing applications and internal resources.
- Use synthetic monitoring to track the availability and performance of your apps and systems.

- Identify issues in different environments before they impact your customers, ensuring smooth operations.
- Automatically respond to events and evaluate their effects on user experience, streamlining your response process.
- Use user-friendly, easy to simulate user journeys and endpoints, setting up alerts for potential issues with ease.

04 User Satisfaction Monitoring

ZIF Dx+ tracks user satisfaction metrics in real-time, allowing you to make informed decisions to enhance the overall customer experience. By staying ahead of potential issues and making continuous improvements, you can ensure that your users remain happy and loyal to your brand.

- Track app growth and user engagement effortlessly by automatically monitoring conversion metrics and key user actions.
- Gain insights into application performance by analyzing it continuously.
- Examine user behavior and customer journeys to dive deep into what flow they follow most and what issues they likely encounter.

Key Advantages of ZIF Dx+



Improved User Experience:

ZIF Dx+ provides a deep understanding of user behavior, systems, application performance, allowing businesses to optimize their digital experience.



Real-time Performance Monitoring:

By continuously monitoring digital performance metrics, ZIF Dx+ helps identify and address issues proactively, ensuring a smooth and uninterrupted experience.



Proactive Issue Resolution:

With its advanced analytics and AI capabilities, ZIF Dx+ can predict and prevent potential problems, minimizing downtime and disruptions.



Seamless Integration with Existing Systems:

ZIF Dx+ seamlessly integrates with your existing technology stack, making it easy to implement and use.

Business Impact Assessment with ZIF Dx+

Imagine having the ability to accurately identify how a slow website or glitchy app is impacting your customers and bottom line. With ZIF Dx+, this becomes a reality.

ZIF Dx+ Dashboard is a robust visualization platform tailored to create comprehensive business reports to view the real time analytics. ZIF Dx+ Business Value Dashboard leverages advanced AI to automatically quantify the financial impact of performance problems and it can also proactively identify potential problems before they even happen, allowing you to take preventative measures and avoid costly downtime. This dynamic tool offers an array of benefits designed to elevate digital experience management:

- **Holistic Visualization:**

Seamlessly visualize key dashboards, including Alerts, EPHI, Performance, Configuration, ZIF Console, Process and Services, Important Events, Inventory, App Journey, and Cybersecurity. Gain a comprehensive understanding of your digital landscape in one centralized hub.

- **Role-Based Access:**

Tailor access levels with precision using Super Admin, Customer Admin, and User-based roles.

- **Performance Metrics Precision:**

Dx+ Dashboard offers designated users access to specialized performance metrics dashboards.

- **Alert Severity Management, Group Name Configuration, Tool Name Customization, Master List Data Management, Event Rule Processing Simplified** are few of its key features, which give our clients an edge over others and also they get a bird's eye view of their IT environment.
- **Dashboard Customization:** Widget Customization, New Dashboard Creation Add, Edit & Remove Dashboards etc., are the features which can be easily customized for Enhanced Administrative Control.

What makes ZIF Dx+ stand out?

ZIF Dx+ stands out as a solution that not only monitors and manages digital experiences but also proactively enhances them. Its advanced digital experience analytics and predictive insights ensure that the IT environment is always ahead of potential issues, delivering an unparalleled user experience. Unlike other monitoring tools, ZIF Dx+ goes beyond simply detecting issues. It provides actionable insights that help you prioritize your efforts and maximize your ROI.

By choosing ZIF Dx+, you're not just investing in a tool—you're committing to delivering the best possible digital experience for your users, driving satisfaction, loyalty, and success.

Key Advantages of ZIF Dx+ Business Value Dashboard and Impact Analysis:

- **Measure financial losses:**
Know exactly how much money you're losing due to performance problems.
- **Detect problems early:**
Identify potential issues before they impact your users.
- **Prioritize efforts:**
Focus on the problems that matter most to your business.
- **Optimize ROI:**
Get the most out of your IT investments.

In today's digital-driven world, ZIF Dx+ is a game-changer for IT leaders. This comprehensive digital experience platform offers deep insights into your organization's digital landscape. By understanding your users' needs and behaviors, you can make data-driven decisions to optimize investments, improve performance, and empower your workforce to thrive in the digital age.

About the Authors

Nithesh is a part of the ZIF Product Marketing team. He has a keen eye for detail and a deep understanding of emerging technologies, which enables him to design and execute successful marketing campaigns that deliver results. He is a lifelong learner who is always seeking out new opportunities to expand his skill set and stay up-to-date with the latest industry trends and best practices.

Maryada is part of the ZIF product marketing team as a lead consultant at GS Lab | GAVS. She has a passion for developing and executing strategic marketing plans that drive growth and engage target audiences, with a focus on digital technologies and delivering user-centric solutions. She always looks for innovative ways to drive business success through effective product marketing. She believes that acquiring knowledge about emerging technological trends is instrumental in fostering a holistic view, thus facilitating preparedness for future changes.

**Nithesh
Kumar**



**Maryada
Kashyap**





Crypto Derivatives in Decentralized Exchanges – A Developer’s Guide

As the cryptocurrency market matures, a new wave of financial instruments is gaining traction – crypto derivatives. These products, which derive their value from underlying digital assets like Bitcoin or Ethereum, are offering both institutional and retail investors innovative ways to gain exposure to the crypto space, hedge risks, and amplify potential returns.

But what exactly are crypto derivatives, and why should investors pay attention to them? In this article, we’ll dive into the fundamentals of crypto derivatives, explore their various types, and discuss how they are shaping the future of digital finance. Whether you’re a seasoned crypto trader or just starting to explore the world of digital assets, understanding derivatives could be the key to unlocking new opportunities in this fast-evolving market.

Centralized Vs Decentralized Crypto Exchanges

Centralized exchanges are the most common type of crypto trading platform. Examples include Binance, Coinbase, Kraken, and Bitfinex. These

platforms function much like traditional stock exchanges, where users can buy, sell, and trade assets through a centralized authority or intermediary.

Advantages include High Liquidity, User-friendly with proper customer support as it has intermediaries which share profits in the process and also proper KYC verification is done by the exchange.

Decentralized exchanges, such as Uniswap, SushiSwap, and PancakeSwap, operate without a central authority. Instead of relying on a middleman to match orders, DEXs allow peer-to-peer trading through smart contracts on a blockchain.

It has low liquidity and no customer support but is more secure and private as you may not be required to share any form of KYC details.

Why is this important for developers?

On DEXs (Decentralized Exchanges), these derivatives are typically built using smart contracts that automate the trading, settlement,

and execution processes. The Decentralized nature of these platforms ensures that users have control over their funds and transactions without the need for an intermediary to manage them.

Automated Market Maker (AMM) Smart Contracts

Most DEXs today operate on the Automated Market Maker (AMM) model. The AMM algorithm eliminates the need for an order book and instead relies on smart contracts that provide liquidity through liquidity pools.

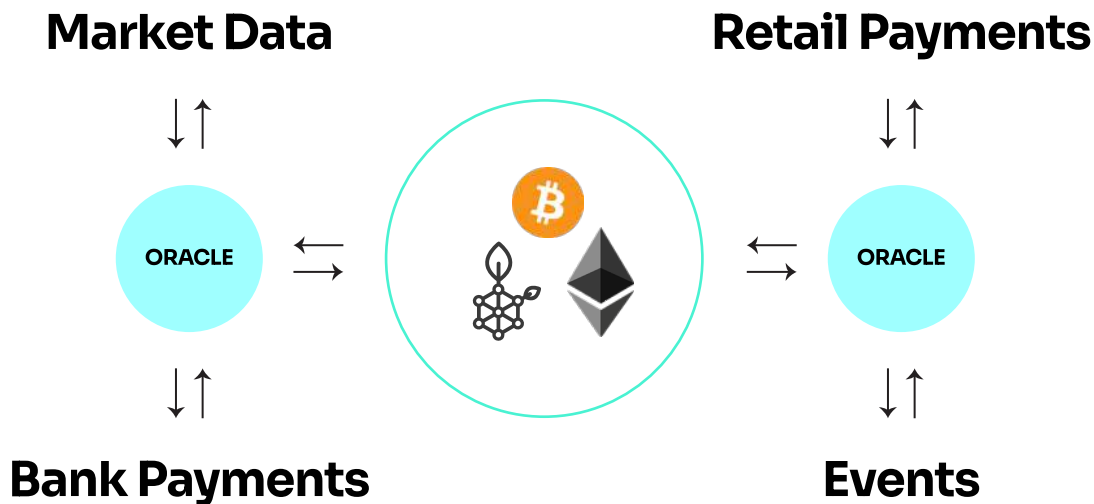
Ethereum Tokens on Decentralized Exchanges (DEXs)

Ethereum tokens are central to DEX trading, as most DEXs operate on the Ethereum blockchain and facilitate the trading of Ethereum Tokens. Popular Decentralized exchanges like Uniswap, SushiSwap, Balancer, and 1inch rely heavily on ERC-20 tokens for their liquidity and trading pairs.

Smart Contract Oracle and Its Role in Decentralized Exchanges

An oracle is a service or mechanism that connects a smart contract to external data sources. It fetches off-chain data and delivers it to the contract in a minimised and secure way.

Oracles are particularly important in decentralized finance (DeFi) applications, prediction markets, insurance platforms, lending protocols, and many other use cases where the smart contract logic needs to be triggered based on real-world events.

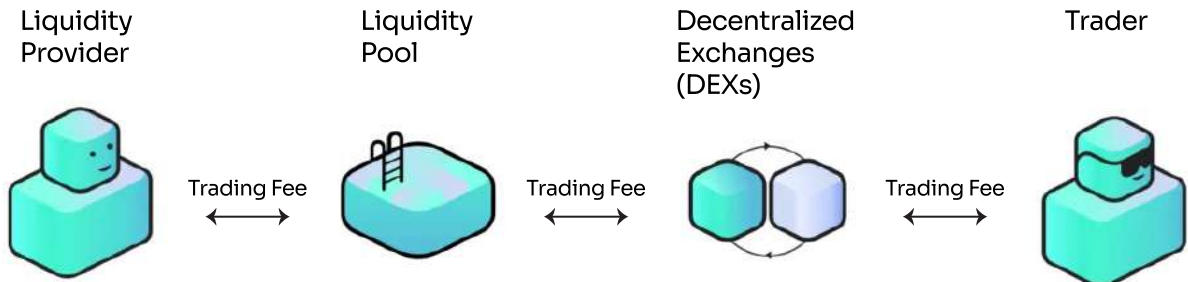


Oracles help in Access to Real-World Data, Triggering Contract Execution, Enabling Decentralized Finance (DeFi), Increasing Trust and Security, Improving Smart Contract Functionality.

Liquidity Pools

A liquidity pool is a collection of funds locked in a smart contract that provides liquidity to a decentralized exchange (DEX) or a decentralized finance (DeFi) protocol. It is a crucial concept in DeFi and enables users to trade assets, earn rewards, or borrow/lend assets in a decentralized manner, without relying on centralized intermediaries like traditional exchanges or banks.

In simple terms, a liquidity pool is a shared pool of assets that allows decentralized markets to function. By providing liquidity to these pools, users contribute to the availability of tokens on a platform, ensuring that traders can easily buy or sell assets without having to wait for someone else to match their orders.



Taking It Further...

While I shared you all some initial insights on the underlying principles of DeFi technology. It is important to note that we require this understanding to work on interesting projects in the DeFi space. In further few articles we will understand more on Automated Market Maker models and try to get a hands on the providers for these exchanges and look at Swaps through Ethereum blockchain. As it provides scope for developers. Stay tuned!

This article was originally published on Medium.com.

About the Author

Jathiswar is a seasoned software developer with expertise in blockchain technology, decentralized finance (DeFi), and cutting-edge software development. Holding a Professional Certificate in Blockchain from IIT Kanpur, Jathiswar has been instrumental in advancing DeFi applications, predictive analytics, and operational intelligence, with a particular focus on Ethereum-based smart contracts and decentralized ecosystems.

With over two years of experience in crafting scalable, user-focused applications, Jathiswar has successfully merged his proficiency in frontend frameworks like Angular and React with backend technologies like Node.js. He excels in integrating blockchain solutions using Web3 technologies, including Solidity, Web3.js, Truffle, and HardHat.

Jathiswar's technical repertoire extends to advanced visualization libraries such as HighCharts, Chart.js, Kibana, and Vis.js. His work in predictive analytics and cybersecurity has consistently delivered actionable insights and enhanced decision-making processes. He has also made significant strides in blockchain-enabled applications, focusing on tokenization, flash loans, and crypto derivatives, exploring their potential to democratize financial access and optimize trading strategies.

**Jathiswar
Bhaskar**





Reversing the Data-Rich, Information-Poor Paradox

AI-Powered Executive Dashboards in Pharma

The pharmaceutical industry is rapidly evolving, with data-driven decision-making at its core. Drawing from years of experience in pharma supply chain optimization, I've observed the significant impact of AI on operational efficiency. This article, the first in a five-part series, explores the pivotal role of AI-powered Executive Supply Chain Management Dashboards.

The Shift in Supply Chain Visibility

Gone are the days of relying on outdated spreadsheets and delayed reports. Today's AI-driven dashboards offer real-time, comprehensive insights that are reshaping how pharma executives strategize and make decisions.

Key Components of AI-Powered Executive Dashboards

Real-Time Data Integration

- Consolidates data from multiple sources (ERP, MES, QMS, SAP etc.)
- Provides up-to-the-minute visibility into global operationstools. Why?

Customizable KPI Tracking

- Tailors metrics to specific executive roles
- Enables drill-down capabilities for deeper analysis

Predictive Analytics

- Forecasts potential disruptions
- Suggests preemptive actions to mitigate risks

Intelligent Alerting

- Notifies executives of critical issues
- Prioritizes alerts based on potential business impact

Scenario Planning

- Empowers business teams with a unified dashboard, providing data-driven insights and complete visibility into the entire supply chain management cycle
- Enables teams to explore data possibilities, leading to more informed and strategic decision-making

Sanofi's AI implementation exemplifies this shift. Their AI-powered platform offers a 360° view of operations, enabling better decision-making across the organization. CEO Paul Hudson highlights the platform's role in enhancing decision-making capabilities organization-wide.

Benefits for Pharma Companies

- **Enhanced Decision-Making:**
Data-driven decisions backed by comprehensive, real-time insights.
- **Proactive Risk Management:**
Early identification of potential disruptions.
- **Operational Efficiency:**
Streamlined reporting and analysis.
- **Strategic Alignment:**
Ensures organizational focus on common goals.
- **Competitive Advantage:**
Faster response to market changes and customer demands.

However, implementing AI-powered dashboards presents challenges, including ensuring data quality, managing change, maintaining regulatory compliance, and balancing customization with standardization.

Looking Ahead

As we navigate the complexities of modern pharma supply chains, AI-powered executive dashboards are becoming indispensable. In the coming weeks, we'll explore four more cutting-edge applications of AI in pharma supply chain management, each building upon the foundation laid by these powerful dashboards.

About the Author

Namita brings over a decade of experience in the Life Sciences and Pharmaceutical sector, currently driving Solutions and Strategies for clients at GS Lab | GAVS. Her journey includes roles in Life Sciences & Pharma Consulting, Pharma Sales & Account Management, and Medical Communications, offering a deep understanding of industry intricacies. With a commitment to excellence and foresight into emerging trends, Namita guides clients towards transformative outcomes in the dynamic Life Sciences landscape.





The Evolving Role of Designers as Advisors: Part 1

Having spent more than two decades in the services sector, I have gained vital experience as a collaborative product engineering partner, supporting clients at every stage of their product life cycles. This journey has enabled me to engage with a wide range of customer segments, from nascent product ventures to established mid-sized and large enterprises. Each segment presents distinct business objectives and challenges, demanding tailored strategies and solutions.

An important aspect of transforming a product vision into reality involves ensuring that all participants are aware of the “context” at every phase of the SDLC. Regular alignment is necessary to ensure teams refer back to the original business goals. UX designers play a crucial role in maintaining a human-centric focus at every stage. As designers increasingly join forces with business and product owners across strategic areas, it will surely strengthen coordination throughout the process.

Roles of UX Designers across different customer segments

Let's explore some of the specific roles UX designers play in each customer segment to drive success.

Early-stage product companies often need guidance on market validation, achieving product-market fit, and developing go-to-market strategies. UX designers can help with:

- Ideation
- Branding
- Developing proof-of-concepts
- Creating new product/service concepts
- High-fidelity prototyping for investor pitches
- Crafting strategies for design systems

Mid-sized companies often seek design systems to ensure cohesion among multiple products and to modernize their offerings for scalability. UX designers can help with:

- Heuristic evaluation
- UX research
- Interaction design
- High-fidelity prototyping for user testing
- Crafting design systems

Large enterprises could benefit from the re-evaluation of their legacy products. Achieving standardization across these organizations typically requires comprehensive solutions that address their complex business needs and long-term strategic goals. UX designers can help with:

- Heuristic evaluation
- UX research and overhaul
- High-fidelity prototyping
- Crafting reusable design systems
- Standardization and Optimizations

The DVF framework

IDEO, a design and consulting firm, conceptualized the DVF framework: it represents the intersection between desirability, viability and feasibility. Each aspect raises the following questions:

- **Desirability:**
What are the user's needs and desires? Is there a demand for a service? Will it effectively address a problem?
- **Viability:**
Is the concept economically viable? What are the associated costs? Is it sustainable in the long term?
- **Feasibility:**
Are the various aspects of the concept technically achievable? Can it functionally scale in the foreseeable future? Will it strengthen the business?

As outlined above, UX designers can significantly influence every phase of the product life cycle. While adhering to standard design processes, principles, and collaborations is essential for creating user-centric products, achieving breakthroughs often necessitates that designers expand their horizons beyond their traditional roles.

By proactively seeking opportunities to contribute to

data-driven strategic decision-making and business development, designers can effectively identify and leverage the synergy between product innovation, user needs, and business objectives. It is important to recognize that creativity and strategy are complementary forces, essential for identifying and solving problems in a meaningful and impactful manner.

Leveraging design expertise for strategic advisory

The role I wish to strongly advocate for is that of designers evolving into trusted strategic advisors. This transformation demands involvement throughout the various phases of product development.

Designers can create impactful products by harnessing their strengths in empathy, requirements gathering, visualization and information structuring. By collaborating effectively with product owners and business stakeholders, they can align on product priorities, business goals, shared vision, process optimization, and standardization.

This will ensure that all engineering participants understand the vision created by business and product stakeholders throughout the development cycle. Designers will design with all these aspects in mind, engineers will build it that way, and quality analysts will test and qualify accordingly. It will also prevent missing goals during the implementation phase.

In their role as advisors, designers must keep the 3 characteristics, desirability, viability, and feasibility, at the forefront of discussions with teams. This way participants can make necessary adjustments to traverse the journey from vision to reality. By cultivating strong relationships with decision-makers, demonstrating their expertise and staying up-to-date on industry trends, designers can establish themselves as trusted advisors who offer valuable insights and recommendations that can drive business success.

Organizations must recognize the pivotal role designers play in product development and avoid perceiving them as isolated problem-solvers focused on aesthetics. This recognition necessitates a cultural transformation within the organization, along with a shift in mindset for designers themselves. I truly believe that this shift is imperative in unlocking the full potential of design and drive innovation that truly resonates with users and aligns with business goals.

In the next part of this blog series, we will see how designers can grow into strategic advisory roles as they progress in their careers.

About the Author

Manisha has over 24 years of experience in the IT industry. She started as a software developer and then took up various leadership roles driving technology and building high performance teams. Currently, Manisha heads the ISV sub-vertical under Hi-Tech Vertical. She leads diverse technology teams spanning across various engineering functions. Being a creative person she also took up the User Experience Competency ownership and now passionately drives design led product engineering.





Leveraging Zero Trust SASE Architecture to Strengthen Cybersecurity in Healthcare

Zero Trust SASE Architecture: An Overview

In today's fast-changing digital world, organizations are increasingly adopting cloud technologies, mobile workforces, and decentralized IT infrastructures. These shifts create significant security challenges, as traditional perimeter-based models no longer protect distributed networks.

Zero Trust Security and SASE (Secure Access Service Edge) offer advanced solutions to these cybersecurity needs. Zero Trust SASE integrates Zero Trust with SASE to provide robust, adaptive, and scalable security, addressing the challenges of securing data, applications, and users in cloud-first, remote, and hybrid IT environments.

How Zero Trust SASE Enhances Security:

01 Dynamic Access Control and Authentication

- **User & Device Authentication:**
A key component of Zero Trust is strong authentication, including multi-factor authentication (MFA), single sign-on (SSO), and adaptive authentication. Zero Trust SASE continuously verifies users and devices attempting to access the network, ensuring only authenticated and authorized users can access sensitive data and applications.
- **Granular Access Control:**
Zero Trust SASE enforces access based on the principle of least privilege. Access policies are dynamically applied, based on real-time analysis of the user, device, application, and environmental context.

02 Micro-Segmentation

Zero Trust SASE incorporates micro-segmentation to create isolated segments within the network, reducing the risk of lateral movement in case of a breach. Even if an attacker gains access to one segment, they are unable to move freely across the network.

03 Zero Trust in the Cloud

- **Cloud-Native Architecture:**
SASE's cloud-native design suits organizations with cloud-first strategies. Zero Trust SASE continuously verifies and monitors users accessing cloud services, applications, and infrastructure, no matter their location.
- **Cloud Application Security:**
It secures cloud applications (SaaS, IaaS, PaaS) by applying granular security policies, real-time threat intelligence, and data protection controls, managing the risks of cloud adoption, especially as critical workloads shift to public or hybrid cloud environments.

04 Integrated Threat Intelligence

SASE platforms use real-time threat intelligence to detect and block advanced threats. Combined with Zero Trust, it triggers security responses and additional authentication checks for suspicious behaviors, such as unusual logins or untrusted devices.

05 Real-Time Monitoring and Analytics

Zero Trust SASE continuously monitors user behavior, network traffic, and device health, analyzing data in real time to enable quick threat detection and response. Features like User Behavior Analytics (UBA) and anomaly detection help prevent insider threats and compromised credentials.

Key Components of Zero Trust SASE Architecture:

01 Zero Trust Principles

- **Always Verify:**
In a Zero Trust SASE model, every user, device, application, and network request must be

continuously authenticated and authorized before granting access to any resource, even if they are inside the network.

- **Least-Privilege Access:**
Users and devices are only granted the minimum necessary access to perform their tasks. This minimizes the risk of unauthorized access and lateral movement by attackers.

02 SASE Components

- **SD-WAN (Software-Defined Wide Area Network):**
Provides optimized, secure, and reliable connectivity across distributed locations, including branch offices, remote workers, and cloud environments. SD-WAN ensures that network traffic is securely routed and prioritized for performance and security.
- **Secure Web Gateway (SWG):**
Protects users from web-based threats by filtering web traffic, blocking malicious websites, and preventing data loss. SWG ensures that users accessing the web (even from remote or mobile environments) are protected from phishing, malware, and other web-borne threats.
- **Cloud Access Security Broker (CASB):**
Enforces security policies for cloud applications, ensuring that sensitive data is protected and that users are compliant with regulations such as GDPR, HIPAA, or PCI-DSS. CASBs are crucial for managing the risk associated with SaaS (Software-as-a-Service) and other cloud services.
- **Data Loss Prevention (DLP):**
Protects against the unauthorized transfer of sensitive data by detecting and blocking potential leaks or breaches across the network. DLP integrates with other SASE components to enforce data protection policies in real-time.

Zero Trust SASE enhances the security posture of healthcare organizations while ensuring compliance with regulatory requirements.

01 Protecting Sensitive Patient Data

SASE's cloud-native design suits organizations with cloud-first strategies. Zero Trust SASE continuously verifies and monitors users accessing cloud services, applications, and infrastructure, no matter their location.

- **Continuous Authentication and Access Control:**
Every user and device is authenticated before accessing sensitive data, using multi-factor authentication (MFA) and role-based access control (RBAC). Healthcare professionals are granted access only to the specific data they need for their role.
- **Least-Privilege Access:**
Zero Trust enforces the principle of least-privilege access, ensuring that users and devices are only able to access the minimum amount of data required for their tasks.
- **Data Encryption:**
Data is encrypted both at rest and in transit, ensuring patient information remains protected from interception, whether it's accessed remotely or through an insecure network.

02 Ensuring Compliance with Healthcare Regulations

Healthcare organizations must comply with strict data protection regulations such as HIPAA in the U.S. and GDPR in the EU. Zero Trust SASE aids in maintaining compliance by continuously monitoring and securing data access.

- **Access Auditing and Logging:**
Zero Trust SASE creates comprehensive audit trails of all access attempts, ensuring compliance with regulations by logging every access to sensitive data.
- **Real-Time Threat Detection:**
By integrating threat intelligence, Zero Trust SASE enables the early detection of malicious activity, preventing regulatory violations and reducing the likelihood of costly fines.

03 Securing Remote Healthcare Workers

The rise of telemedicine and remote healthcare work introduces new security risks, as healthcare professionals need access to systems and data from various locations and devices. Zero Trust SASE mitigates these risks by ensuring that only trusted devices and authenticated users can access critical systems.

- **Zero Trust Network Access (ZTNA):**
Unlike traditional VPNs that provide broad network access, ZTNA grants application-level access, ensuring that remote healthcare workers can only access the specific applications or data they need.

- **Device Health Validation:**
Zero Trust SASE continuously checks the health and security of the device being used to access healthcare systems. Devices must meet specific security standards before they can access sensitive data.

04 Mitigating Insider Threats

Healthcare organizations face significant risks from insider threats, whether intentional or accidental.

- **Behavioral Analytics:**
Zero Trust SASE uses behavioral analytics to detect anomalies in user activity. For example, if an employee attempts to access patient records they don't usually interact.
- **Granular User Permissions:**
Zero Trust SASE ensures that healthcare professionals have access only to the systems and data necessary for their role.

05 Securing Medical Devices and IoT

The growing number of Internet of Things (IoT) and medical devices in healthcare settings presents a unique challenge in terms of cybersecurity. These devices, which are critical to patient care, can be vulnerable to cyberattacks if not properly secured.

- **Device Authentication:**
Zero Trust SASE ensures that only trusted and authorized devices are allowed to interact with sensitive data.
- **Micro-Segmentation for Medical Devices:**
Medical devices, such as infusion pumps or diagnostic equipment, can be isolated within their own network segments. If a device is compromised, it cannot easily access other parts of the healthcare network, reducing the risk of a breach impacting patient data.
- **Continuous Monitoring:**
It continuously monitors medical devices for abnormal behavior. If any device is found to be compromised access can be revoked.

06 Securing Cloud-Based Healthcare Applications

As healthcare organizations migrate to the cloud for EHR systems, hospital management, and telemedicine, Zero Trust SASE secures these applications through strict access

controls, ensuring data privacy and preventing unauthorized access.

- **Cloud Access Security Broker (CASB):**
A CASB integrated into Zero Trust SASE ensures that cloud-based healthcare applications are secure.
- **Data Loss Prevention (DLP):**
It enforces DLP policies to prevent sensitive patient data from being shared or leaked inadvertently or maliciously.
- **Secure Web Gateway (SWG):**
The SWG inspects and filters all web traffic, blocking malicious content such as ransomware or phishing attempts before they reach cloud applications, further securing the environment.

Zero Trust SASE offers a transformative cybersecurity solution for healthcare, addressing challenges from decentralized and cloud-based infrastructures. By combining Zero Trust principles with SASE's, it protects sensitive patient data, ensures regulatory compliance, secures medical devices and IoT, and mitigates risks from remote work and insider threats. Zero Trust SASE provides a scalable solution that empowers healthcare organizations to meet modern security demands while maintaining high patient care standards.

About the Author

Ayyanar Govindaraj is an experienced IT security professional with over 12+ years of expertise in network security. With a deep understanding of network firewalls, he has hands-on experience with leading technologies, including Palo Alto Networks, Fortinet, and Cisco ASA. Ayyanar has worked extensively across a range of security technologies such as Cloud Access Security Brokers (CASB), Zero Trust architecture, Data Loss Prevention (DLP), Netskope Secure Web Gateway (SWG), and email security solutions, particularly Proofpoint. His broad skill set and in-depth knowledge have made him a trusted expert in securing enterprise networks and ensuring robust threat protection in complex IT environments.





GS Lab | GAVS at Events





www.gavstech.com

Follow us on:

