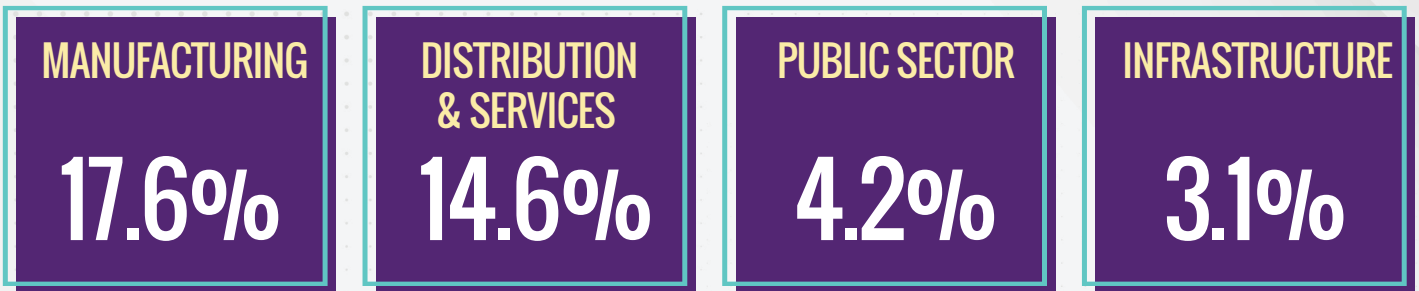# BLOCKCHAIN

THE ROLE OF BLOCKCHAIN TODAY

It is the world of technology. Every other day, we see a new tech-enabled solution to everyday challenges. Recently, Blockchain has gained recognition especially as banking, investment and cryptocurrency are common areas of interest amongst the global population. As of 2021, financial institutions alone have spent around $552 million on blockchain-powered projects (Fortunly, 2021).

GLOBAL SECTOR-WISE DISTRIBUTION OF BLOCKCHAIN

MANUFACTURING	DISTRIBUTION & SERVICES	PUBLIC SECTOR	INFRASTRUCTURE
17.6%	14.6%	4.2%	3.1%

Source: Fortunly, 2021.[i]

Now, what exactly is Blockchain? As the name suggests, blockchain stores data in blocks which are then tied together in chains. Any kind of data, including financial transactions, supply chain, contracts, documents and digitized assets, can be stored in Blockchain which is different from a traditional database that uses columns and rows in tables. Many use the simple example of a Google Doc to explain how Blockchain works. When a Google Doc is created, it is shared with several people. This sharing facility provides the access to everyone and the ability to view and make changes in the document live. All modifications are viewed in real-time.
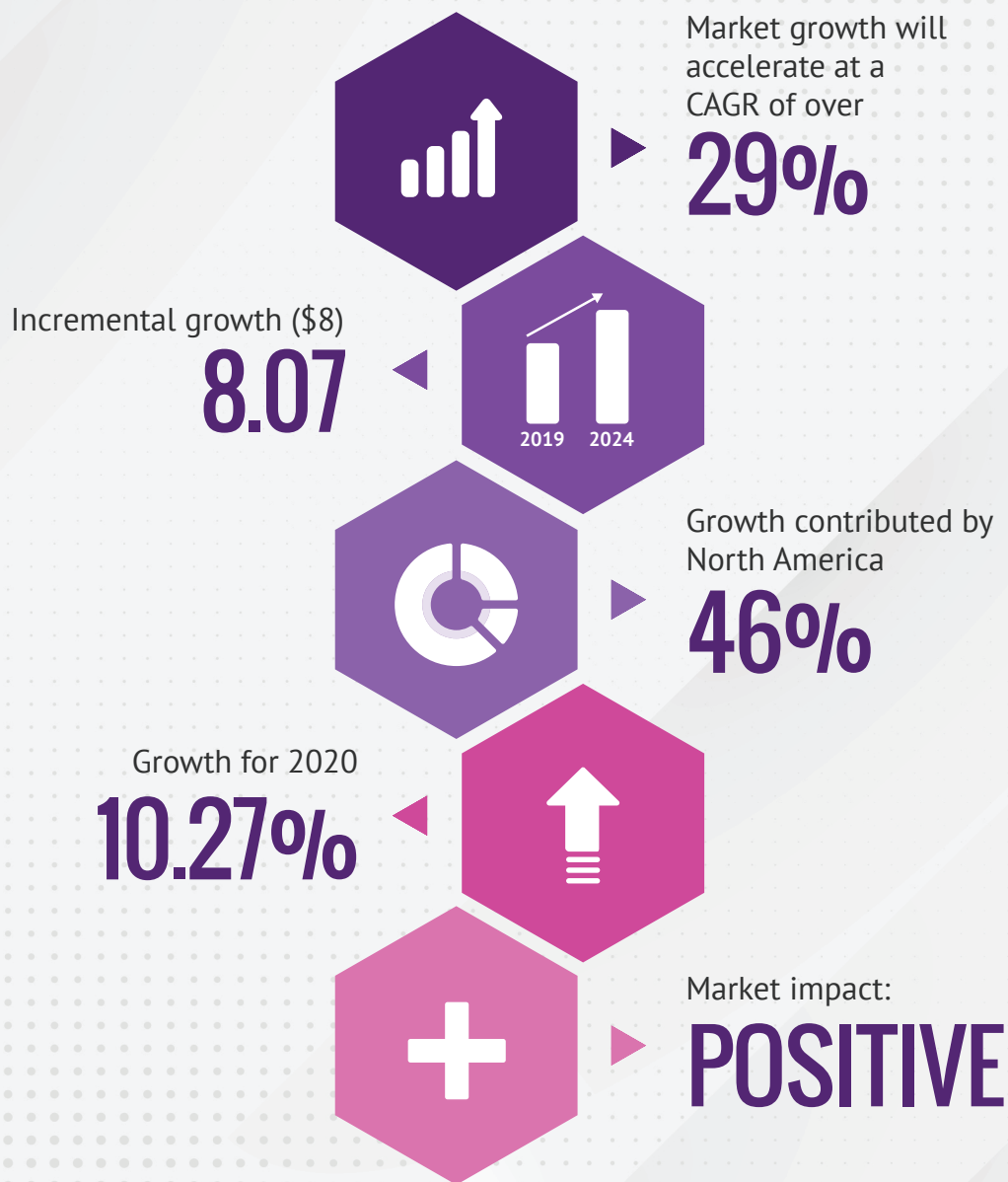
> *The whole point of using a blockchain is to let people — in particular, people who don't trust one another — share valuable data in a secure, tamper-proof way.*

MIT Technology Review

> *What the internet did for communications, blockchain will do for trusted transactions.*
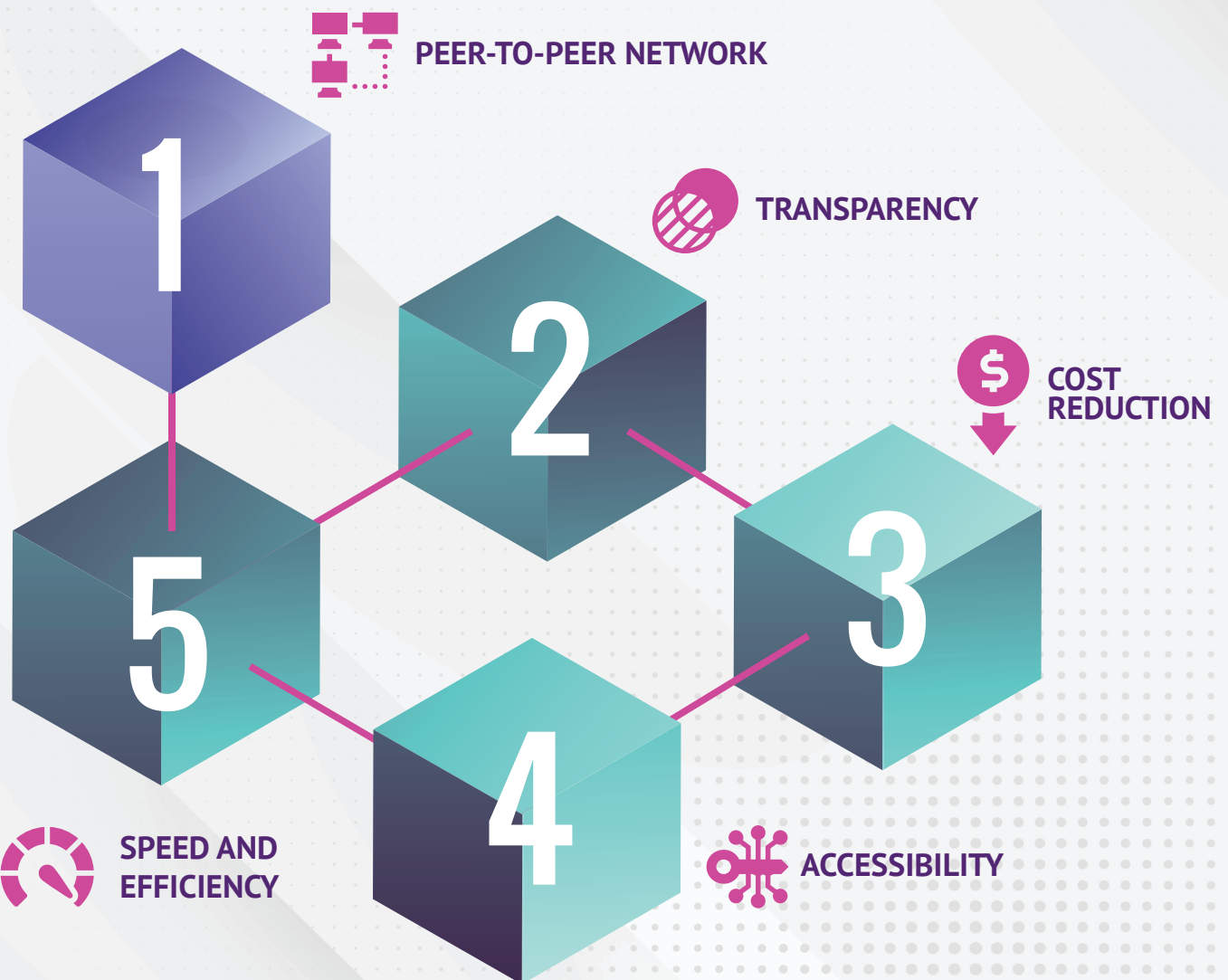
- Ginni Rometty, CEO of IBM

Global tech giants including IBM, PayPal, VISA and Microsoft have heavily invested in Blockchain and the figures are expected to rise. According to Statista (2021), the Global Blockchain Market stands at $1 trillion.[ii] One of the major reasons propelling growth in the Blockchain industry are heavy FinTech investments and the increasing popularity of cryptocurrency. There are many different cryptocurrencies, however, Bitcoin is the first and most established one.

Market growth will accelerate at a CAGR of over

29%

Incremental growth ($8)

8.07

2019   2024

Growth contributed by North America

46%

Growth for 2020

10.27%

Market impact:

POSITIVE

Source: Technavio, 2021

BENEFITS OF BLOCKCHAIN

Blockchain is now moving beyond cryptocurrency and being adopted for other areas. An example is of the Ethereum Project, which is a bazaar of financial services, games and apps with increased security and privacy. Furthermore, Non-Fungible Tokens (NFTs) have also become highly popular blockchain tokens, that assign a value to a digital asset based on its history and usage. Blockchain is also being used sector-wise.

For example, in the healthcare industry, blockchain is being used to transfer sensitive patient information through smart contracts. Companies are also adapting to blockchain technology for the safe and secure transfer of monthly payments and royalties as well as digital marketplaces. Blockchain is also being used to protect title insurance and ownership by providing a digital ledger with transactions.

PEER-TO-PEER NETWORK

1

TRANSPARENCY

2

COST REDUCTION

3

SPEED AND EFFICIENCY

5

4

ACCESSIBILITY

Source: 101Blockchain, 2021

Companies	Services & Solutions
DAO PROPTECH	Decentralized Marketplaces
LOGICON	Smart Contracts and DApps, Multi-tier Security Exchanges, Digital wallets
DEV CENTRE HOUSE PAKISTAN	Smart Contracts, Asset Tokenization, ICO, IEO, and STO and crypto exchange services
DEV PROVIDER	Smart Contracts, Cryptocurrency, DApps
VIRTUAL FORCE PVT LTD	Smart Contracts, Cryptocurrency, DApps
TECHIN SOLUTIONS	Smart Contracts, Cryptocurrency, DApps
RNS SOLUTIONS	Smart Contracts, Asset Tokenization, ICO, IEO, and STO and Crypto-Exchange
BLOCK360	Decentralized Marketplaces, Smart Contracts, Cryptocurrency, DApps
XORD	Decentralized Finance, Layer 2 Solutions, Digital Sovereign Identity and Token Development
BLOCK VENTORS	Decentralized Marketplaces, Smart Contracts, Cryptocurrency, DApps
DEV BATCH	Smart Contracts, Asset Tokenization, ICO, IEO, and STO and Crypto-Exchange
REACTIVE SPACE	Decentralized Marketplaces, Smart Contracts, Cryptocurrency, DApps
IT EMPIRE	Smart Contracts, Asset Tokenization, ICO, IEO, and STO and Crypto-Exchange, DApps
OPTIMUS FOX	Smart Contracts, Wallet Development and Exchange Development
RIKSOFT	Smart Contracts, Cryptocurrency, DApps
APPSGENII	Smart Contracts, Cryptocurrency, DApps

DAO Proptech

An organization that aims to revolutionize the real estate industry, DAO Proptech uses Blockchain to provide users a decentralized marketplace. The marketplace gives power back to the people through cost-based pricing and fractional ownership rights as well as self-driving transactions. The platform is called "DAO Bloc" which is a digital marketplace with real-time monitoring of transactions, construction and past selling price of the property. Furthermore, the analytics allow buyers to assess the viability of the deal. As of 2021, DAO Proptech is also constructing a Valuation Calculator™.[iii]

> *I would highly recommend DAO to my inner and outer circle, especially housewives because it lets you save your money in a very transparent manner.*

Minahil Khan
Lawyer - Research Society of International Law

Logicon

Lahore-based Logicon is a software development company providing custom services to its clients. Logicon also provides Blockchain Development by providing smart contracts and decentralized applications, multi-tier security exchanges, digital wallets and other services by using Ethereum, Hyperledger, Solidity and Truffle. The organization has been able to provide blockchain services to HealthTech, EdTech, Supply Chain Management, Real Estate and Crypto Arbitrage Trading. One of the success stories of Logicon is the provision of blockchain developers to Mirian Peer Wallets, a New York based FinTech startup. The Blockchain developer worked for Mirian Peer Wallets on smart contracts, testing, deployments, security, optimizations and advanced Plasma architectures, which is helping them accelerate as an emerging FinTech organization.[iv]

> *We've pretty much forgotten how it feels like to worry about development!*

Mirian Peer Wallets
Dev Centre House Pakistan

Dev Centre House Pakistan

A software house that provides blockchain development to its clients, Dev Centre House has been able to serve the Healthcare, Consumer Goods and Financial Trading sector through its work. The organization has provided smart contracts, asset tokenization, ICO, IEO, and STO and crypto exchange services and consultancy to its clients. Some notable clients that Dev Centre House has served include BMW, Shannon Chamber, Medxnote and Mophie.[v]

> *We love their in-depth understanding and enthusiastic approach to problem-solving*
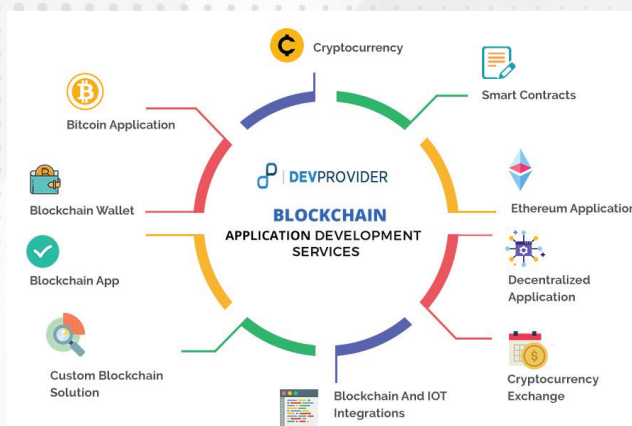
Garfield Connolly, Chief Technology Officer, Medxnote

Dev Provider

An Islamabad-based Blockchain development company; Dev Provider provides a range of services. These include cryptocurrency, smart contracts, Ethereum application, decentralized application, crypto exchange, blockchain and IoT integration, blockchain app, blockchain wallet, custom blockchain solution and bitcoin application.[vi]

> *We have been working with DevProvider for last 3 years and have found them very professional and dedicated with work. They have professional PHP Programmers with knowledge of E-Commerce and related services.*

S. Wessels, E-Fashion

Virtual Force Pvt Ltd

Virtual Force is a technology solutions provider for enterprises. By providing engineered solutions, the organization helps clients achieve success faster. The Virtual Force team also specializes in Blockchain. Through digital ledgers, the organization helps its clients across different industry verticals including fintech, edtech, ecommerce, web and mobile apps. Some notable clients that have trusted Virtual Force for their solutions include EMAAR, MediCheck, Lorryz and ProducePay.[vii]

> *Virtual Force undertook the very challenging task of building our payment platform from scratch, head on. We were faced with very tight time constraints, while working remotely and despite many challenges, VF managed to create an amazing end-product that far exceeded our expectations. The work ethic is superb, management impressive, and communication admirable. VF team is flexible and can think on their feet when on a bind!*

Pablo Borquez, Co-founder Producepay

TekRevol

Along with software, AR and VR development, TekRevol provides blockchain development solutions to their clients. The Karachi-based organization also has regional quarters in Dubai, Washington, Houston and San Fransisco. As per TekRevol, the organization has been able to increase the user retention and customer satisfaction rate of all their clients up, ranging from 73% to 85% as well as a ROI of 250%.[viii]

> *Their speedy communication and ability to hold true to their promises are both rare and appreciated.*

Ray Gladwell, Owner, HDE

RNS Solutions

RNS Solutions is a software development provider, which also has a separate Blockchain lab. As a part of the blockchain lab, the organization uses Hyperledger, Cosmos, Dash and Ethereum. RNS Solutions have developed public and private Blockchain, crypto trading bot, Initial Coin Offering (ICO) and Security Token Offering (STO) platforms, Blockchain wallets, explorers, nano ledgers, DApps, stable coins, OTC web and mobile application and Defi software solutions. The organization has been able to provide services to Deloitte Training, Olympic Committee, Delta Project, BandZ Network and many more.[ix]

> *They delivered more than what they promised to develop. They're a very transparent and honest team.*

Co-Founder, BandZ Network, Canada

Block360

Islamabad-based Block360 provides blockchain development services as well as consultancy to international and local clients. The organization provides blockchain solutions for P2P and M2M payments, P2P lending, Digital assets trading and Digital twin. Block360 has been able to help clients save their operational costs, close IT talent gaps and adopt digital transformations. For one of their clients, Global Stability Union (GSU Digital), Block360 developed a primary marketplace where the trading of digital units including BTC (Bitcoin) and ETH (Ethereum) would be possible. Other notable clients include Orex360, Swap Global, Gleipner, Naga Coin, Meritt, Notary Platform and DES Exchange.[x]

> *The process was so smooth that we didn't feel the need to use our project management software."*

Founder, Financial Services Company, Denmark

XORD

A Blockchain development provider, XORD has developed applications that have generated a value of up to USD 31.3 million+. The solutions provided by XORD include Decentralized Finance, Layer 2 Solutions, Digital Sovereign Identity and Token Development. The organization worked on a decentralized gaming App using an NFT called Tippy. The App called "Tippy Tank" has been built by XORD using Ethereum and each Tippy can be traded on the Enjin Market place as these are Enjin Tradable NFT's.[xi]

Client

Cryptofarm

Website

crypto.farm

Categories

Crypto Exchange

Decentralized Exchange

Dev Batch

Dev Batch is a multinational development company that provides services in Blockchain, web and mobile apps. As of 2021, Dev Batch has completed 3000+ projects and has 2100+ global clients. The organization has completed 20 ICOs using different technologies including ERC20 token, Minable coins and ICO marketing etc. Dev Batch is also stepping into STOs and building security tokens. The different industries that Dev Batch serves include the Government, Entertainment, Logistics, Insurance, Retail, FinTech, Agriculture, Transportation and more. The organization provided a blockchain-powered portal to the Government of Zimbabwe.[xii]

Challenge

Challenge was that we had to convert the whole application dashboard from ROR to another language, back-end in Node.JS and frontend in Vue.JS with less amount of code freezing.
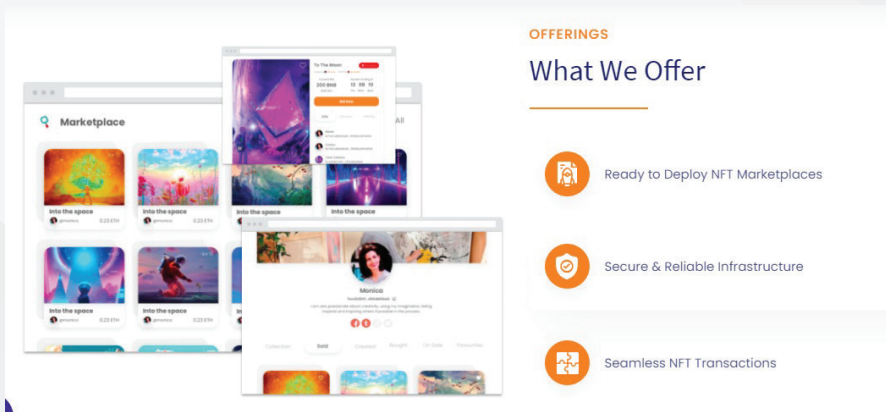
Result

Due to successful and efficient completion of the work, the client awarded us version 2.0 of the dashboard as well.

GET FREE CONSULTATION

Reactive Space

Islamabad-based Reactive Space provides Blockchain services to startups and enterprises. The different sectors that the organization covers includes logistics, fintech, healthtech and agriculture. One of the recent projects that Reactive Space has completed includes the Alladin Pro Wallet for a South Korea-based organization. Alladin Pro Wallet now provides user-friendly trading for all cryptocurrencies as well as effective portfolio management.[xiii]
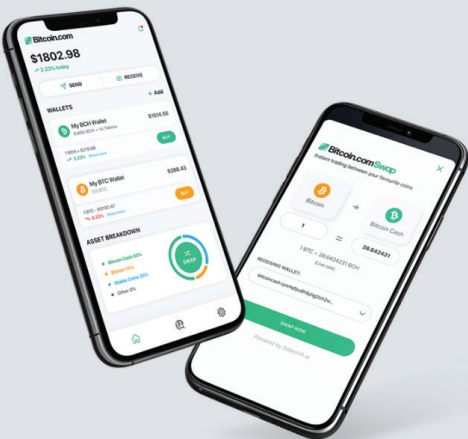

Optimus Fox

Optimus Fox possesses a team of experienced blockchain development professionals. The organization provides Smart Contracts, Wallet Development and Exchange Development solutions under its blockchain initiative. Through their range of services, Optimus Fox aims to help clients manage time, reduce data storage cost, eliminate duplication of data, ensure data security and reduce risks and uncertainty. The organization has served several international clients including Birb, Taswit, Singh and Bit Nautic.[xiv]

IT Empire

IT Empire provides solutions in Blockchain along with web and mobile app as well as SEO services. The solutions that are provided under Blockchain are various, including custom Blockchain software, Blockchain and IOT integrations, Blockchain apps, smart contracts, business and financial modeling, coin/token designing, wallet development, detailed business analysis, ethereum application, DApps and many more. Notable clients that IT Empire has served include the Arfa Karim Foundation, RM Sales, Royal News, Dal-ul-Iman, Pak Pets and various others.[xv]

Cubix

Headquartered in Karachi, Cubix is a mobile app that provides blockchain development services, gaming, mobile and web app development, AI and on-demand delivery solutions. The services that Cubix provides include facial recognition, location tracking, motion sensing and web conferencing. They provide several products under marketing and HR as well, known as the Cubix Happyface and Cubix Shop, with a purpose of automating these departments for their clients.

> *I loved working with Cubix. I was surprised to see how genuinely the team was interested in making my app a success in the industry, instead of how most companies just want to get done with the work. They kept suggesting how to improve the app's designs and also accommodated my recommendations. I hope to work with them in the future as well.*

Denise Marcus, Director of Operations - DataStream[xvi]

ArhamSoft (Pvt) Ltd

ArhamSoft (Pvt) Ltd. is among the pioneer IT hubs of Pakistan that provides quality software solutions. ArhamSoft is a premier, one-stop hub for all modern Business and IT solutions. One of the industries at ArhamSoft (Pvt) Ltd. covers blockchain services including the development of NFTs, tokens, exchanges, ICO's, and farming platforms. ArhamSoft is playing a vital role in revolutionizing the IT industry by focusing on Decentralized Finance Projects. Various DEFI Apps are developed to cater to the digital needs of customers and to solve complex financial issues. Kingdomonero is a cryptocurrency exchange developed by ArhamSoft for an international client that enables users to swap their various crypto coins and tokens with ease and flexibility.Another product by ArhamSoft is Nightmare. Nightmare is a crypto-yielding farm developed on the Binance smart blockchain.

COMPANIES PROVIDING TRAININGS & COURSES IN BLOCKCHAIN DEVELOPMENT

Pakistan Software Export Board (PSEB) and Dice Analytics

PSEB and Dice Analytics formed a partnership to provide a job-ready Masterclass in Blockchain. During the course, students learn about the history of Blockchain and imperative concepts including DApps, tokens, Ethereum, Hyperledger and others. The course commenced in May 2021 and is also allowing students the opportunity to network with experts in the field.[xvii]

Presidential Initiative Artificial Intelligence and Computing (PIAIC)

PIAIC offers a one-year program titled "Blockchain Specialist" which is for absolute beginners in the field of Blockchain. The program covers digital money, digital tokens, Ethereum and Hyperledger, DApps, smart contracts, Blockchain and Islamic finance and other modules.[xviii]

> *Being in the IT field for almost a decade and knowing the job market in developed countries, I believe the contents are very advanced, practical and currently trending. Learn it quick, do the hard work and you will definitely land a job because companies are looking for skilled peoples right now.*
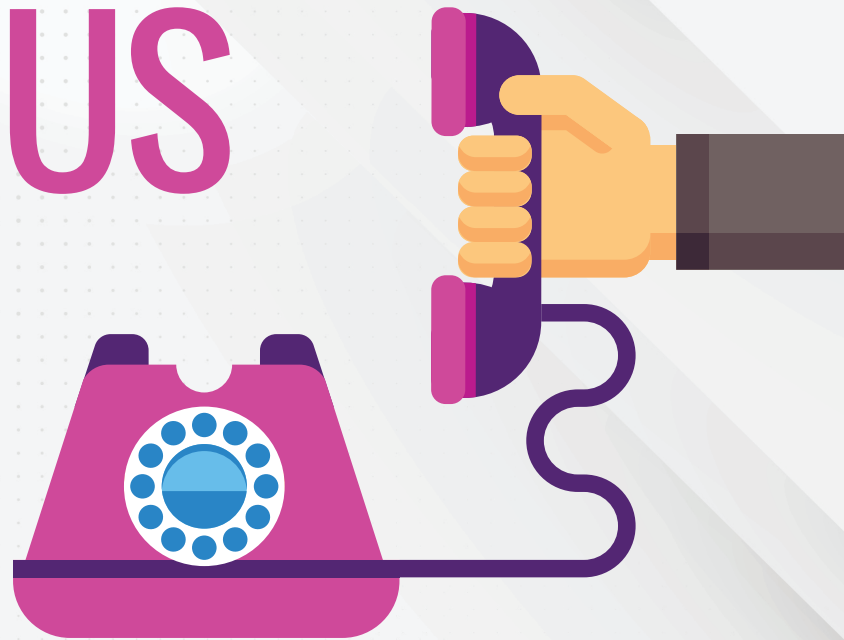
- Faisal Muhammad

BLOCKCHAIN IS HERE TO STAY

The decentralized nature of Blockchain makes it unique. Experts are now predicting that imperative daily life applications will soon be shifted to Blockchain. The solutions that blockchain is providing are now moving forward from cryptocurrencies and NFTs, although many of them are still in the pilot stages. Although still at a nascent stage, blockchain development in Pakistan is being recognized by the industry, government institutions and individuals as a cost and time-saving need. Through institutional trainings and courses offered, people can now become trained in blockchain technology without strict entry requirements. These trainings are helping individuals become job-ready to join companies that are providing blockchain solutions to international clients. The future of blockchain is indeed promising.

REFERENCES

i. Fortunly, 2021. 45 Blockchain Statistics and Facts. Fortunly. Available at: https://fortunly.com/statistics/blockchain-statistics/#gref

ii. Statista, 2021. Blockchain Statistics. Statista. Available at: https:e//www.statista.com/topics/5122/blockchain/

iii. Dao Proptech, 2021. Projects. Dao Proptech. Available at: https://www.daoproptech.pk/

iv. Logicon Tech, 2021. Success Stories. Logicon Tech. Available at: https://logicon.tech/

v. Dev Centre House Pakistan, 2021. Services. Dev Centre House Pakistan. Available at: https://www.devcentrehouse.eu/

vi. Dev Provider, 2021. Blockchain. Dev Provider. Available at: https://www.devprovider.com/

vii. Virtual Force, 2021. Solutions. Virtual Force. Available at: https://virtualforce.io/

viii. Tek Revol, 2021. Solutions. Tek Revol. Available at: https://www.tekrevol.com/

ix. RNS Solutions, 2021. Blockchain Lab. RNS Solutions. Available at: https://www.rnssol.com/

x. Block360, 2021. Case Studies. Block360. Available at: https://www.block360.io/

xi. XORD, 2021. Solutions. XORD. Available at: https://xord.com/

xii. Dev Batch, 2021. Portfolio. Dev Batch. Available at: https://devbatch.com/

xiii. Reactive Space, 2021. Case Studies. Reactive Space. Available at: https://reactivespace.com/

xiv. Optimus Fox, 2021. Portfolio. Optimus Fox. Available at: https://www.optimusfox.com/

xv. IT Empire, 2021. Blockchain Development. IT Empire. Available at: https://itempire.net/index.ite?self

xvi. Cubix, 2021. Services. Cubix. Available at: https://www.cubix.co/services

xvii. Dice Analytics, 2021. Blockchain Masterclass. Dice Analytics. Available at: https://diceanalytics.pk/school/courses-and-workshops/pseb-training/

xviii. PIAIC, 2021. Blockchain Specialist. PIAIC. Available at: https://www.piaic.org/

TALK TO US

DO YOU RUN A BUSINESS IN THE BLOCKCHAIN INDUSTRY?

GET IN TOUCH WITH YOUR DETAILS NOW AT
MEDIA@TECHDESTINATION.COM
AND WE'LL TAKE IT FROM THERE.

ALSO EMAIL US FOR ANY COMMENTS, SUGGESTIONS
OR ERRORS IN THIS WHITEPAPER.

FOR MORE INFORMATION ON
REGISTERED COMPANIES, PLEASE VISIT
HTTPS://TECHPAKISTAN.COM/

ABOUT THIS INDUSTRY ROUNDUP

Pakistan Software Export Board developed this paper by hiring services of an independent consulting firm to prepare this roundup on Pakistan's Blockchain sector. The paper focuses on Pakistan-based companies in this vertical and apprises the reader of the expertise available in Pakistan in the Blockchain domain.

DISCLAIMER

A product of TECH destiNATION Media

Commissioned by:

Ministry of Information Technology & Telecommunication
DIGITAL PAKISTAN

PAKISTAN
PSEB
SOFTWARE
EXPORT BOARD

TECH *desti***NATION PAKISTAN**

Developed by:

epiphany   **C**ybervision
INTERNATIONAL

Publishing year: 2021