BHADALE GROUP OF COMPANIES
- IT AND REAL ESTATE

Jul 15 2022

Quantum BFSI Enterprise Services Catalogue

Bhadale IT Pvt. Ltd. (**https://www.bhadaleit.com/**)

Bhadale Group of Companies

Bhadale Group of Companies consists of:

1. **Bhadale IT Pvt. Ltd** is an IT and Computer Engineering subsidiary company

   This division provides consultation in areas of cutting edge technologies, research outsourcing, and software consultation related to data center and related engineering practices

2. **Bhadale Engineering Pvt. Ltd** is a multi-engineering subsidiary company

Various divisions under this group provide design, & development of various IT and Engineering programs.

Bhadale Group has aggressive programs in place to serve the niche market. Below is related to cloud ecosystems

Bhadale Group IT Division, Quantum Services department

Below are few of our service offerings:

1. Quantum BFSI enterprise adoption ecosystems planning
2. BFSI Business Use case based quantum enterprise design
3. Open and proprietary quantum and classical ecosystems & integration
4. Partner ecosystems based solutions
5. Quantum cloud ecosystems implementation
6. Industrial domain specific quantum enterprise services
7. Project specific services
8. Custom ecosystems services

Details of the above are put in the table below

Service details

Image courtesy (The Web), no intention for copyright infringement

We have a large set of subcategories; few are mentioned below with details tabulated

Service No	Service Name	Key Service features
1	Quantum BFSI adoption ecosystems planning	We offer a wide range of quantum ecosystems based services for the convenience of our clients based on their business needs, and your end client missions : • Classical IT assets reuse based custom quantum ecosystems with overlay networks as value-add • Quantum BFSI Industrial taxonomy based ecosystems for speed, accuracy and performance improvement • Ecosystems covering banking expert systems, Cognitive systems, Augmented, virtual reality, reality checks, background verifications, signature verifications, fraud alerts etc • Ecosystems to host and serve various internal and external clients, for example role unit/ department / division based functions, non-conflicting processes, anti-locking, anti-tampering features, real-time alerts and security features for zero-day virus and hacking attacks • Ecosystems from IBM/Red Hat, Google, AWS, Intel and partners that offer global forex merchants, online business markets, horizontal and vertical markets, B2B, B2C, B2G markets Popular intelligent digital marketing platforms like GCP, Azure, Apache and Open Shift Based on our vast experience and expertise in serving the engineering and IT industry, we offer accelerated speedup in adapting to the ecosystem and use IEEE, NIST, ISO standards. We leverage on our tie-ups and partnerships with various institutes, universities and network

2	BFSI Business Use case based quantum systems design	Client business specific system design, with a general focus on domain and special focus on client enterprise needs. Few of our services: • Requirements analysis (B2B, B2C, startups, various institutes, enterprises, micro-units) to draft the systems landscape with various types of elements, subsystems across various enterprise divisions • Business models design based on use cases as a platform independent model and enterprise engineering • Technology based platform specific models for target quantum servers, computing backend simulators and other ecosystems • A business ecosystem modeling based on industry frameworks and existing business priorities like SOX, Basel, Real-time, offload, security, verification and authentication • Quantum for modernization for stock trade, fraud detection, risk assessment, portfolio analysis and stock recommendation, insurance analysis, parametric Neural Network, validation, verification, anti hacking algorithms, fuzzy AI expert system, lending credit analysis, prediction for various KPA, Monte Carlo simulations • Assistance in monetization of the developed assets, work package planning, agile management and solution bundles for cloud platform and datacenter offerings
3	Open and proprietary quantum and classical hybrid ecosystems planning & integration	We offer planning for open source tools, products, frameworks, and integration services for existing and new ecosystems. Few of our services are: • *Quantum Internet alliance, Quantum cryptography* based integration for end nodes (trapped ion qubits, diamond NV qubits, neutral atom qubits) and quantum repeaters (rare-earth-based memories, atomic gases, quantum dots) and integration of both subsystems [2] • Quantum Cloud development using various BFSI taxonomies Classical platforms integration leading to quantum ecosystems • Open Stack, Open Nebulla, Apache stacks, Linux, Java based ecosystems • Open Networking, Open Virtualization , Open Orchestrator etc • Full stack integration, interoperability across various stack layers, quantum interfaces, protocols, quantum chips, control and data planes etc
4	Partner Ecosystems based quantum solutions	We offer partner ecosystems based solutions. Few are mentioned below: • Google • IBM • Intel • Microsoft Google Cirq, Tensorflow quantum, Colab, Google Quantum, Google algorithms and Google industrial solutions based offerings for various domains. IBM Qiskit, IBM Quantum labs, IBM Circuit Composer based solutions for various quantum phases of delivery .IBM Quantum-Safe for Z16 Mainframes, Power 10

Servers that offer advanced post-quantum cryptography algorithms that have been cleared by US agencies like NIST, IEEE, ISO and Federal Bank

IBM Block chains, distributed ledgers, Quantum-Safe ledgers for originality and tamper detection using quantum computing, and various theft and hacking detection tools.

Intel quantum computing chips , control circuits, interconnects, hardware for various qubits like superconducting qubits, quantum dots, silicon chips (CMOS, MOSFET , FPGA) , Cryoelectronics, Horse Ridge II [3] cryogenic quantum control chip

We offer extended services for full stack integration, cross-compilers, cross-programming, transformations from classical to quantum states, quantum memory based operations, cryogenic based thermal tests, heat dissipation checks at sub zero temperatures

5	Quantum cloud planning and implementation	We offer services from various partners that may have a contract based services offerings. Few of our services: • Cross-partner ecosystems design, development • Offering our unique expertise in quantum data center engineering • Migration of classical data, tiers to multi-partner ecosystem • Offering a centralized or decentralized governance systems • Cross cloud security systems • Micro services framework design • Multi cloud managed services framework design • Custom ecosystem design based on needs • Design of various GUI, admin, instrumentation web pages and control units for better and refined management consoles • Planning for various shared services, resource pooling and management of inventory from a central console
6	BFSI Industrial domain specific quantum services	We offer unique tailored ecosystems for 50+ domains based on the leading partner solutions. A separate excel sheet is offered for the details of each domain. One sample domain offerings : • Integration of quantum services with the existing classical systems • Risk profiling functions for various loans, credits or monetary lending using AI, and quantum algorithms • Real-time stock trading integration with quantum and AI systems and software enabling faster access to data and decision making capacity • Simulation using various models like Monte-Carlo and Black-Scholes-Merton model, that uses the concept of Brownian motion to price financial instruments – like European call options – over time. • Short listing and Trading predictions and recommendation engines planning and design • Applying various algorithms to reduce false positives thereby enhancing better customer experiences

7	Project specific services	We offer services based on popular projects like migration, quantum project frameworks, quantum technology stacks. We cater to specific needs like work load specific to Big data, Data science, AI/ML, Micro services, real time streaming, mobile etc. Few of our services are: - Quantum Project Requirements analysis - Identifying project specific quantum ecosystems - Designing the development tools, apps, services - Integrating and testing into the program environments - Offer value added services
8	Custom ecosystems services	As per client needs based on our offers, mixture of these along with client specified systems We are flexible to offer our consultants on a project or a time basis, as an internal or external hire based on your business needs. We place our consultant based on your specified merit and work needs. We have a team of licensed engineers and developers who can be of help in your project and quantum solutions

References:

1:https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20digital/our%20insights/quantum%20computing%20use%20cases%20are%20getting%20real%20what%20you%20need%20to%20know/quantum-computing-an-emerging-ecosystem.pdf

2: https://quantum-internet.team/

3: https://www.intel.com/content/www/us/en/newsroom/news/2nd-gen-horse-ridge-cryogenic-quantum-control-chip.html

Disclaimer: All rights are owned by respective owners. We have no intention to infringe copyrights or brand names. All details, references are for educational purposes only

For more details, contact below:

Contact

Bhadale IT Pvt. Ltd
Program Manager: Vijayananda Mohire, Email: vijaymohire@gmail.com