Enterprise Architecture for the NexGen Solutions-

powered by: Quantum AI and Solution Hub

Features, benefits, takeaways

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Company Confidential

Why NexGen Solutions

It enables better use of existing assets, discovering new products, improved productivity from home, office, or industrial plant

Supports various common services like banking, health care, transport, technical support etc in ease of doing work or business

NexGen Solutions

Empowers the enterprises and clients, in making best use of emerging technologies like AI, quantum etc with easy to use cloud based tools, gadgets and apps

Uses AI based agents, and robots to meet the shortage or availability of the supply chain of various levels of professionals like semi-skilled and skilled workers

NexGen Solutions a solutions factory 4

DSL based data, industry solutions, with plug-in for various product offerings:

- Doctors – get help is prescribing medicines, anatomy, various 2D, 3D graphics, Grey's anatomy etc.
- Engineers – analysis of various structures, strength, circuits, engineering best practices etc.
- Lawyers: Sections, bylaws, rules, judges with explainable AI
- Farmers- seasonal data like tropical diseases, rain / snow / fog, risks etc

NexGen Solutions: a solutions market 5

- Offers B2B, B2C, intelligent market solutions to global sellers and buyers
- Small owners can register with their products, for better online presence
- Enables large firms to increase market size and opportunities
- Newer working models like Gig economy, remote, JIT labor
- Tailored solutions: Enables reuse of existing ecosystems, partners, IP, patents, etc

NexGen Solutions: a solutions market 6

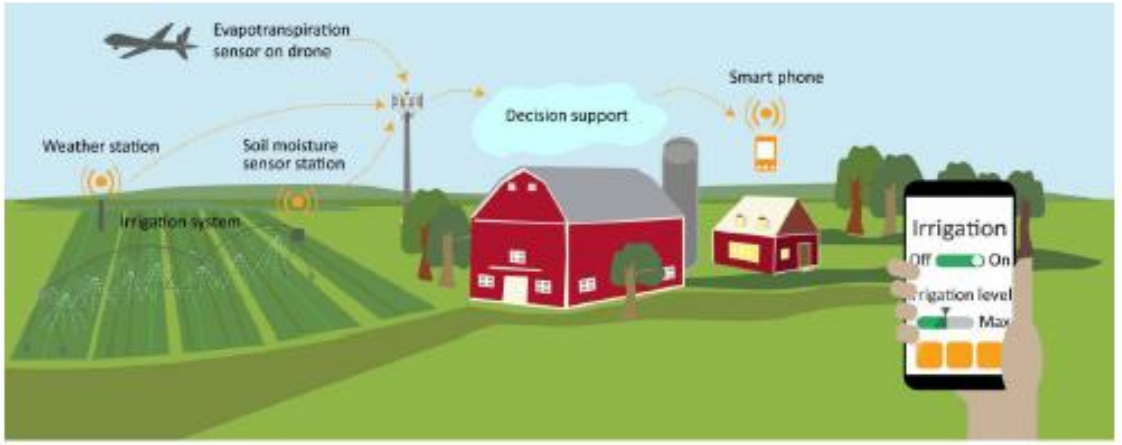
- Govt. agencies can call for tenders, enabling economy booster, leverage of under-utilized and un-utilized labor
- Integration with various private agencies, platforms and Govt. portals for faster and better SCM of commodities , faster economy and improved living
- Aligned to Ministers' portfolios, national priorities, interests etc
- Compliments with various federal portals and allied agencies

Solution Café: a Product / a Service

Manually submit / Wizard based submission → Review free results → Request detailed reports, solutions

Solution Café: a Product / a Service

Product details



Source: GAO. | GAO-20-128SP

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

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

Product No	Product Name	Key Product features
1	**Farmer's Climate aid**	Use of weather patterns to forecast weather for farmers
2	**Precision agriculture/satellite farming aids:**	**Precision agriculture (PA), satellite farming or site specific crop management (SSCM)** is a farming management concept based on observing, measuring and responding to inter and intra-field variability in crops. The goal of precision agriculture research is to define a decision support system (DSS) for whole farm management with the goal of optimizing returns on inputs while preserving resources

Solution Café: a Product / a Service

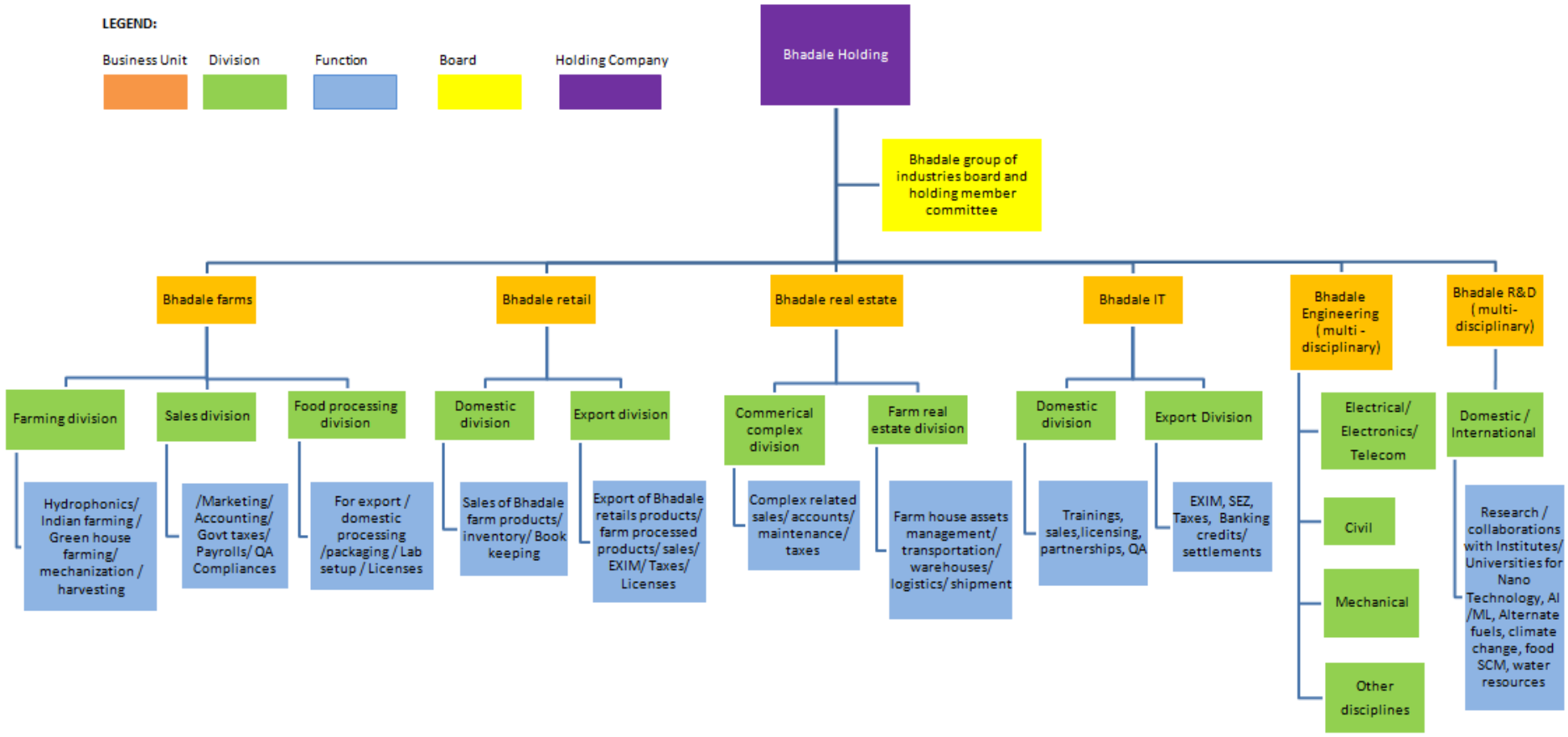
Services details

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	Computer Education	Use of digital education to empower farmers to become literates
2	Hi tech farming services	Is a farming management concept based on usability of hi tech tools like robots and exoskeletons to aid non-privileged farmers
3	Products Knowledge sharing	With farmers for Digital records of agriculture , farming, tools, reusable resources, reading satellite images, geo maps, and many more products

Solution Café: current offers to core businesses

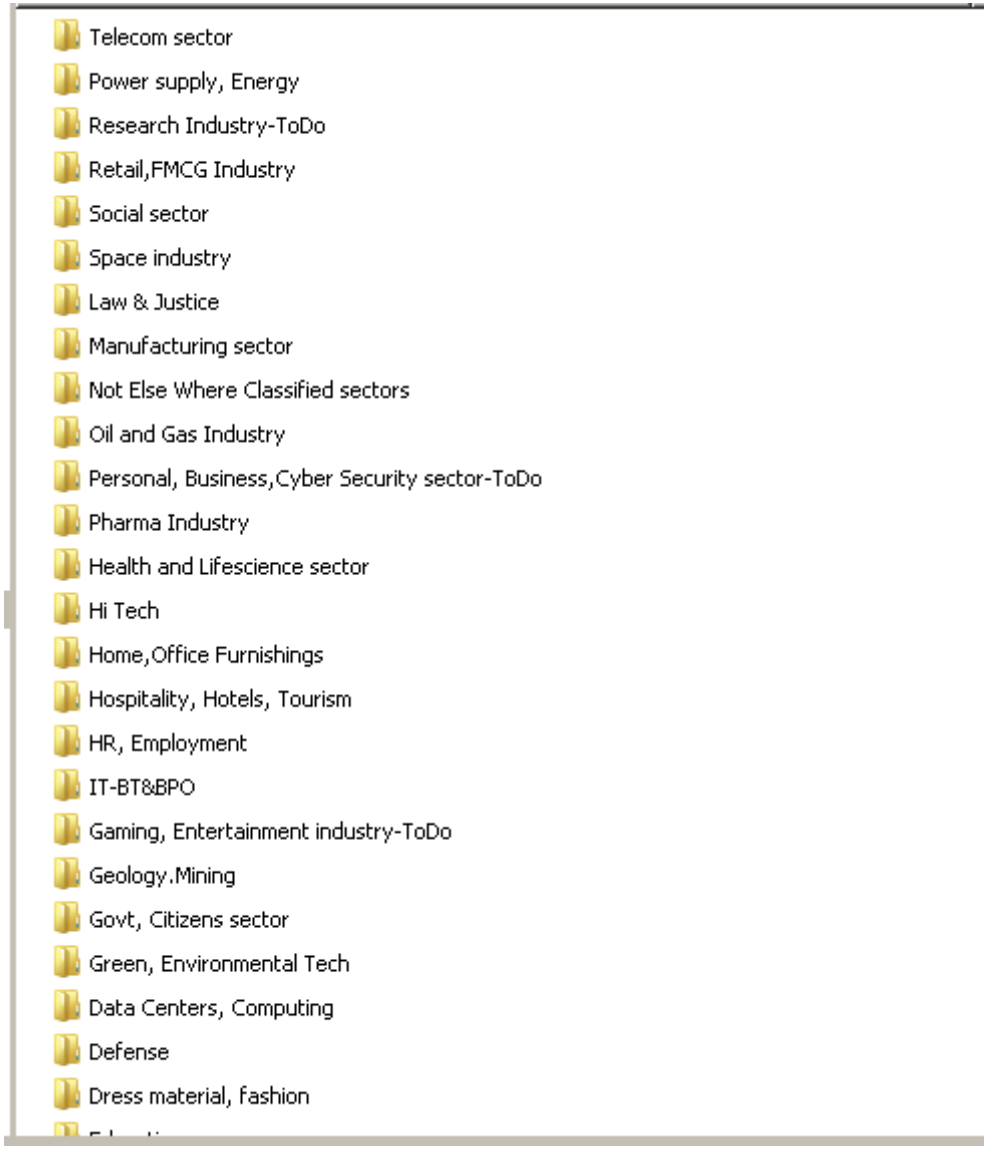


NextGen Solutions: Business Unit offers

		Business unit / subsidiary	Bhadale R&D					
Sl.No	Division	Function	Programs / Benefits offered	Projects / Improvements	Asset name	Asset status	Folder location / file link	Other details
1	Domestic	Local market needs	Bio technology , Life science, Drugs	QAI for Crisper, new drug discovery, new DNA analysis and surgery techniques.				
2			Military needs	QAI based sensors, warfare devices, tools, gears, suites, secret communications, cyber shields, homing guidance, safety of soldiers, escape methods and routes, satellite communications, reuse environment to make clean water, get energy for gears,and safe food from available green or plants				
3								

Index | Bhadale farms | Bhadale Retail | Bhadale Real Estate | Bhadale IT | Bhadale Engg | Bhadale R&D

Solution Café: Industries served (35+)



NexGen Solutions : Sample catalogue

SERVICES LIST

AGRI PRODUCTS

1. Farmer's climate aid
2. Precision agriculture/satellite farming aids
3. Agricultural tube farming aids
4. Smart Agriculture farm safety
5. Smart Agriculture crop safety
6. Smart Agriculture processing
7. Smart Agriculture storage

AI PRODUCTS

8. AI based Multi-agent system package
9. Concordance software for text discovery and analysis

AUTOMOBILE PRODUCTS

10. Manufacturing Robotic process automation system
11. Electric car using a solid state hybrid battery

Why Enterprise Architecture (EA)

1. Rapid technology progress and waves that are disrupting the markets, and economies.
2. Nations have set various types of priorities and request enterprises to align their assets and business to these
3. Many IT assets , designs, architectures are becoming obsolete ; they need a newer way to modernize and migrate to newer digital platforms
4. Many enterprises are seeking to leverage newer technologies like AI, ML, quantum computing, block chain to new a few.
5. Invest once (CapEx) in engineering a factory and operate business for a decade is not possible.
6. Focus is towards (OpEx) agile, rental and subscription based business models allowing for rapid ramp up, ramp down or shutting down with minimal loss

Enterprise Architecture – Needs

1) 80% reuse across Enterprise, Corporate divisions, departments etc - How to achieve this
2) 20% unique needs of the projects - How to achieve this
3) Scalable, flexible, configurable, disaggregated, modular, micro services, cloud native
4) Intelligent pairing , routing to various service calls without any overheads using AI
5) Speed up operations, especially large data search, indexing, retrieval that are limited by the read write limits of hard disks, network bandwidth, latency, noise etc
6) HPC like features for cluster formation, IaaS level code , API based operations, in memory, in place memory operations, inside memory swaps, prefetch data etc

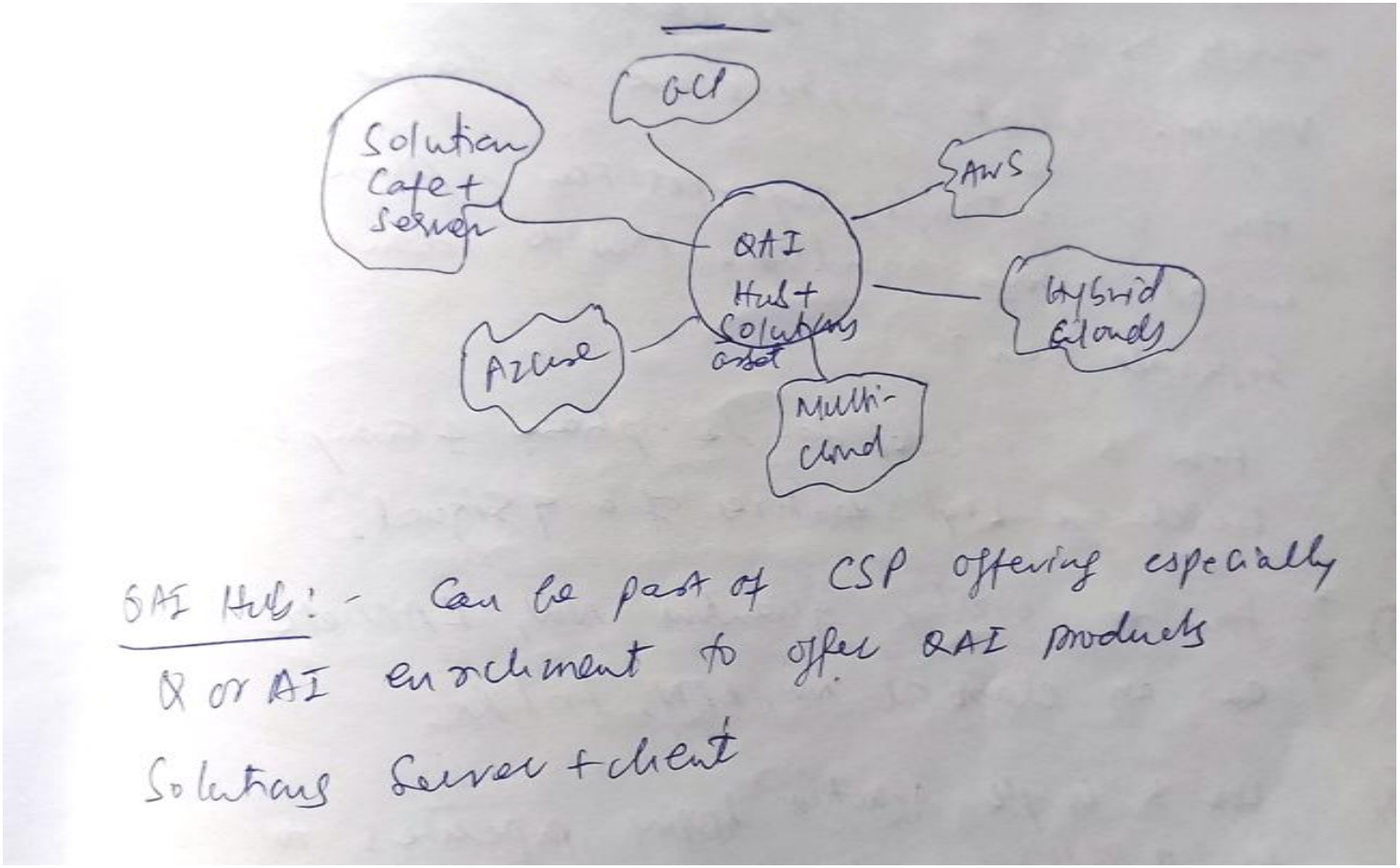
Enterprise Architecture – Needs

7) Multi cloud, cloud based Identity, Access, Authorization, Token and Inside threat detection
8) Domain driven, Client driven, Industry driven, Project driven mechanisms
9) Disaggregation of Physical and Cyber worlds with clear interfaces and isolation
10) Robust DevSecOps, AIOps, MLOps, QAIOps, CloudOps, EnterpriseOps, AgileOps
11) Flexible to capture future business needs and IT assets deployments, to meet rapid changes to business products and service offers
12) Multi-vendors solutions mapped to use cases, business needs and problem areas
13) ERP CRM, integration with loose coupling, cloud APIs,
14) MulticloudOps using proxies like Google Anthos

Enterprise Architecture – Needs

15) Simplify the various OSI layers to meet various client types and budgets.
16) Newer protocols that simplify this like a collapsed backbone, hyper converged system
17) Automate various services, manual operations, or procedures that humans can make mistakes
18) Business continuity in degraded mode allowing minimum assured operations using digital twins, backups, hot standby clusters etc
19) Poolable premise, cloud assets using virtualization, use of tags, label based on client project needs
20) Effective client engagement, management, UX and client satisfaction using various deployments like SOC
21) Auditable assets, easy inspection and quality control
22) Aligned to National, regional and client business needs

Solution Hub



Source: Bhadale IT

Solution Hub

- The need and demand for high quality digital platforms that can help clients to get the most of the newer technologies
- Solution Hub allows for rapid on boarding of clients to various modules on a need basis, allowing them to subscribe to modules they need only
- Solution Hub allows for better mapping of problem space to solution space
- Can host various types of middleware, APIs, vendor neutral fabrics, enterprise communication bus, intelligent routing, simplification and abstraction of low level local calls
- Isolating local failures from affecting peer networks

Solution Hub

Hub Core: This is the bare minimum set of tools, libraries and software needed to leverage our various platform offerings. The core can be deployed remotely, onsite, to mobiles or even an IoT.

Multi Cloud Engg : Offers IDE, tools for integration of various cloud vendor solutions for IaaS, PaaS, SaaS Models, related client requirements, domain requirements, project needs etc to the available vendor solutions using our best practices, inventory , assets and our expertise in middleware design. Designs like Mesh architecture, Service Bus, OSI layers, logical design tools, workflow design, various security features, off loaders, centralized or distributed admin etc that many clients need to administer

Solution Hub

Multi Quantum Tech: For cross-technology and classical and hybrid modes of operations, we have the hub equipped with best practices from various vendors, tools and backend. Integration with multi-cloud Engg as explained above is possible allowing for faster on boarding of clients. Supported technologies include superconductors, semiconductors, trapped ions, topological qubits, and photons to name a few. We offer direct solutions that allow for clients making best use of the various features from various vendors.

Solution Hub

Multi AI Tech: For cross-AI, ML technologies, platforms. This is integrated with the Multi Cloud Engg module, allowing for easier and portable movement of virtual assets across different vendors, using open source and open standards.

Multi Cloud and Multi Quantum: This allows for special clients and guests to take their innovations to greater heights by having a fully integrated set of multiple clouds, multiple AI, multi quantum tech to be available and an optional HPC center can be made available at a dedicated colocation.

Competitive Advantages

1st TO MARKET

Unique solution café centers dedicated to handling unique issues

LARGE INCENTIVES

Use of unique models and solutions enabling large free to use services.

OPEN TECHNOLOGY

Use of open and neutral tools

HIGHLY QUALIFIED STAFF

Talent base with wide exposure to real industries , with licenses

EMERGING TECHNOLOGIES

AI, quantum and Gartner hype cycle based technologies

ROBUST ECOSYSTEM

Wide range of tie-ups with R&D institutes and scholars from top-tier universities

Thank you

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