



**BHADALE GROUP OF COMPANIES  
- IT AND REAL ESTATE**



Aug 15 2021

Google Industrial Services Catalogue

Bhadale IT Developers Pvt. Ltd

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**Bhadale Group of Companies**

Bhadale Group of Companies consists of:

1. **Bhadale IT Developers 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 Developers Pvt. Ltd** is a multi-engineering subsidiary company

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

**Bhadale Group IT Division, IT Services department**

Below are our key industrial sectors:

1. **Industry 4.0 Architecture and design solutions**
2. **Agriculture sector**
3. **Aviation Industry**
4. **B2B,B2C service providers**
5. **Government**
6. **Manufacturing**
7. **Retail Industry**
8. **Banking and Financial sector**
9. **Health and Life-science sector**
10. **Oil and Gas Industry**
11. **Telecom sector**
12. **Transportation, Logistics, shipment, warehouse**
13. **Real Estate**
14. **Legal**
15. **Space**
16. **Hotel and Hospitality**
17. **Industrial research**

Details of the offerings served are detailed in the following section

## Product details

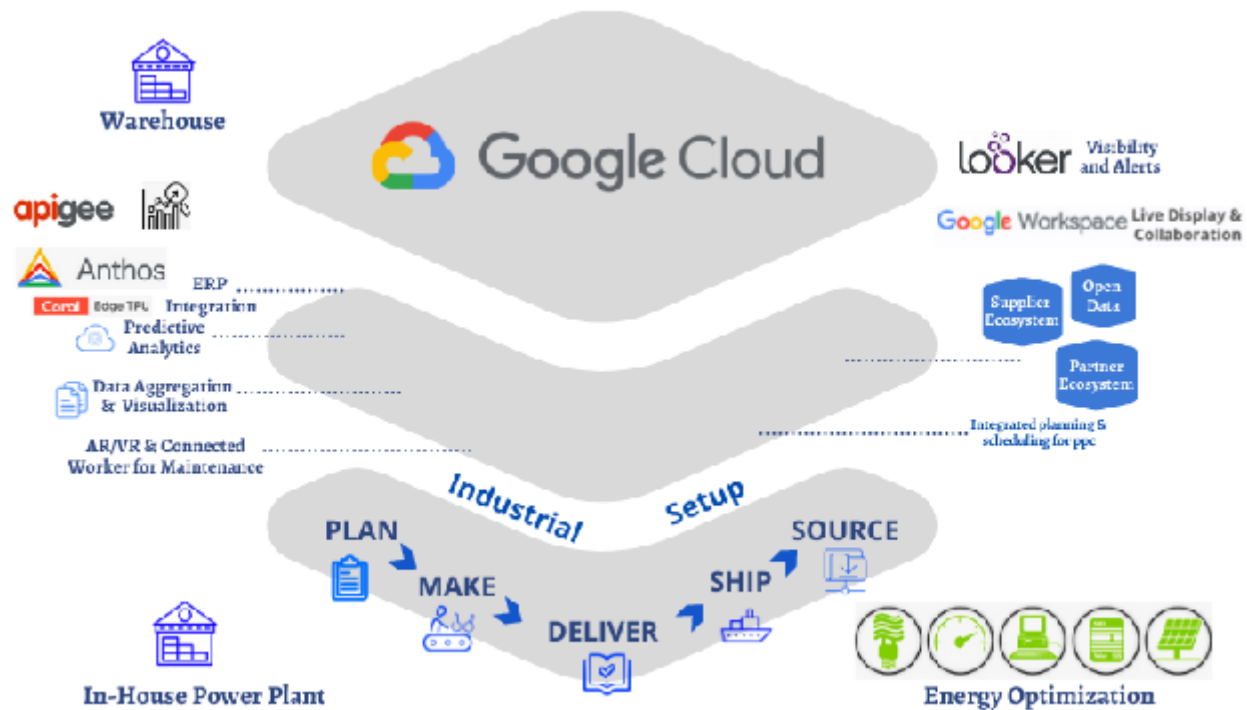


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We have a large set of subcategories; few are mentioned below with details tabulated

Service No	Service Name	Key Service features
1	<b>Industry 4.0 Architecture and design solutions</b>	<p>We offer customized framework solutions based on Industry 4.0 and GCP principles</p> <ol style="list-style-type: none"> <li>1. Operational excellence</li> <li>2. Security, privacy, and compliance</li> <li>3. Reliability</li> <li>4. Performance and cost optimization</li> </ol> <p>These principles apply to cloud-native applications as well as migrations from on-premises applications to public cloud, hybrid, and multi-cloud deployments</p> <p>We help clients in drafting various plans, maps, roadmaps, strategies and offer related workshops that enable key stakeholders, architects and designers to get the newer ways of doing enterprise –ready frameworks and adopting digital technologies</p> <p>On the basis of cyber-physical production systems (CPPS), merging of real and virtual worlds</p>

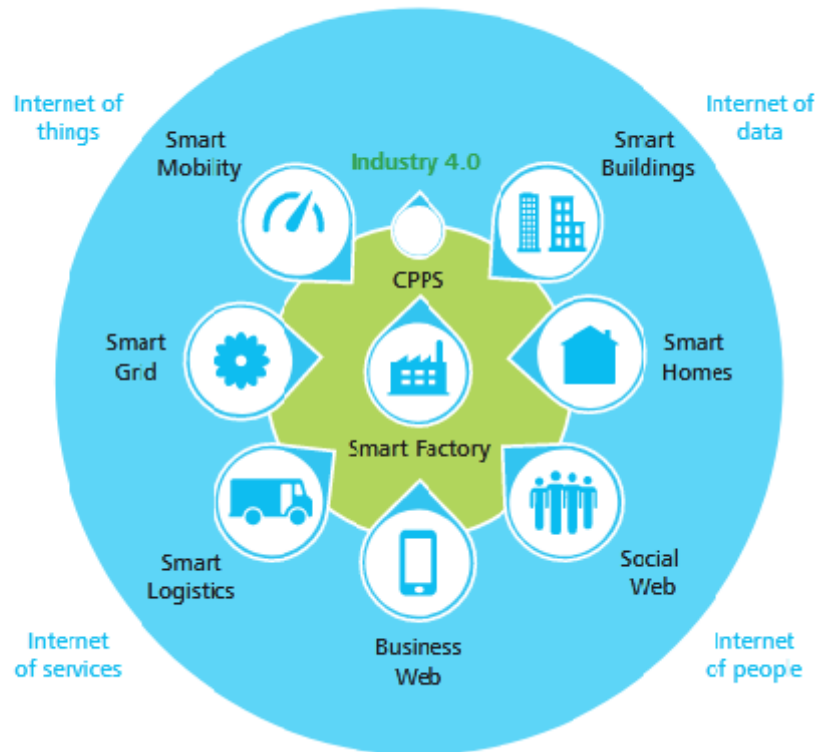
The industry 4.0 environment<sup>2</sup>

Image source: Deloitte

1. Vertical networking of smart production systems (Solutions for IT Integration, Analytics and data management, Cloud-based applications, and Operational efficiency 2.0): The first main characteristic of industry 4.0 is the vertical networking of smart production systems in the factories of the future. This vertical networking uses cyber-physical production systems (CPPSs) to enable plants to react rapidly to changes in demand or stock levels and to faults. Smart factories organize themselves and enable production that is customer-specific and individualized
2. Horizontal integration via a new generation of global value chain networks (Solutions for Business model optimization, Smart supply chains, Smart logistics, IT security management, new taxation models, and New IP management): The second main characteristic of industry 4.0 is horizontal integration via a new generation of global value chain networks. Similar to networked production systems, these (local and global) networks provide networking via CPPSs, from inbound logistics through warehousing, production, marketing and sales to outbound logistics and downstream services
3. Through-engineering across the entire value chain (Solutions for Deloitte Monitor's "ten types of innovation", efficient management of innovation, efficient life cycle management): The third main characteristic of industry 4.0 is cross-disciplinary through-engineering across the entire value chain and across the full life cycle of both products and customers.
4. Acceleration through exponential technologies (Biotech, Nanotech, New energy & sustainability, ICT & mobile technology, Sensing, 3D printing, Artificial intelligence, Robotics, Drones): The fourth main characteristic of industry 4.0 is the impact of exponential technologies as an accelerant or

		catalyst that allows individualized solutions, flexibility and cost savings in industrial processes.
2	<b>Agriculture sector</b>	<p>We Integrate multiple sources of agricultural data(georeferenced data from satellites, combined with data from IoT sensors in fields, crop rotation and yield histories, weather patterns, seed genotypes and soil composition ) with our machine learning and other algorithms in determining agronomic and financial risk for farmers, seed developers, insurance and financial companies, traders and governments. We use BigQuery for our data warehouse and the Cloud SQL database service to handle OLTP queries to our database, BigQuery GIS for geospatial analysis, Cloud Dataflow for simplified stream and batch data processing, and Cloud SQL for queries to the database platform, automatic crop classification methods using Google Earth Engine and BigQuery GIS and Google Glass</p> <p>We create indices out of biological assets. These indices measure yield losses on crops that are caused by the effects of weather and other factors, which are then used as underlying assets for products, such as swap/derivative contracts and parametric insurance policies, to transfer risk to the financial markets. This helps to optimize planting by geography, resources, and crop species, monitor phenological, pests and humidity evolution throughout the crop season, and estimate yields.</p> <p>We assist clients in Interactive farming bots, program design, domain knowledge, reuse of existing farming assets, tools, heuristics, multi discipline, multi department, nearby distribution centers, regional offices, intelligent data for days weather, seasonal weather, seeding, growing, harvesting, fertilizers, diseases, crop yields based on drone images, recommended tools for various situations</p> <p>We offer DSL for various farming sectors like poultry, horticulture, sericulture, fish, animal farming, and crops, pushed as separate modules on the core system. We design common templates for the ORG based on Google structure, tailored to the individual groups, roles and base architecture based on Google cloud.</p> <p>Global scope of various apps, websites, farming mobile units, drones, robots, equipments, tractors, tools, lab setup all have AI to offer various options and assist a layman to start farming without any politics, biases involved using Explainable AI, everything suggested based on data</p>
3	<b>Aviation Industry</b>	<p>We combine previously disparate systems and data feeds into one unified platform by leveraging Google Cloud's infrastructure and leading machine-learning capabilities.</p> <p>Recommendation for a number of factors for a stable operation-- aircraft rotation, aircraft maintenance, crew assignment and more--and provide recommendations to improve passenger punctuality, on-time flights and flight plan adherence in case of disruptions, such as weather events or delays due to airspace congestion</p> <p>We help in design of Digital travel buddy for customers and helps enable the airline to meet future customer demand, digitizing technology assets and processes, digitizing business products and systems, and fostering innovation through hackathons and</p>

		<p>dedicated laboratories.</p> <p>We develop systems for analysis of avionic data, flight recorder data, and other data from passengers, other airlines, satellites, ground stations and reporting organizations and federal authorizes and cross-border data, all data combined in a CPPS paradigm makes a better choice for all stakeholders and ensures quality services</p> <p>We offer partner solutions like Google and NOKIA offerings for airports, ANSPs, airlines and MRO companies, offering operational excellence at airports, improved safety and operational effectiveness of ANSP services, superior in-flight broadband, or enhanced customer service and efficiency for MRO inspections.</p> <p>We handle use cases spanning the entire value chain from a customer's initial travel inspiration and research through the ticket purchase and flight all the way to post flight services. Few of these are: Getting inspired, planning and search, Shopping, Booking and payments, preparing to fly, check ins, lounge bookings, boarding, service &amp; catering, landing &amp; departure, post-flight services, loyalty. We define personalized apps for various travelers like aged, sick, corporate, class, trip types, recommendations based on entire itinerary</p> <p>For the service centers: Improved visibility of data, performance and future expectations, current issues, earlier resolutions to similar issues, tech chatbots</p> <p>For flight operators: Scheduling based on various parameters like time, season, over bookings, rates, offers, best trip for saving fuel, time and money</p> <p>For tower operators: Better situational data ensuring lowered risk for flight approaches for landing / takeoff, removing of any blind spots, continuous improvements and monitoring for any freaks, issues, onboard non reach ability, always on monitors / intermediate stations and data analysis</p>
4	<b>B2B,B2C service providers</b>	<p>B2B + B2C – sell to consumers and businesses in parallel</p> <p>We use Google maps, Google/YouTube ads, business recommendations, partner search, on boarding and institutionalize, data center collocations, business relations management, advanced planning and replenishments based on orders, sharing of trade patents, or data on a lease or a full payment basis, SCM, external parties, subletting, subcontracting, beating the competition, profit sharing based on contributions, discounts, betterment of employees, easier migration for KT and project works, white labeling,</p> <p>We help improved market presence of unknown brands using popular intermediate</p> <ul style="list-style-type: none"> <li>• Access to qualified leads with no per-customer acquisition cost.</li> <li>• Reduced overhead.</li> <li>• Quickly leveraging the credibility of Business B.</li> <li>• Access to customer data.</li> <li>• Control regarding branding and pricing.</li> </ul> <p>We integrate Google Pay, Google webhosting, Google Workspace all can be tailored as per the business partners and consumer needs</p>

5	<b>Government</b>	<p>Google Cloud helps government agencies improve citizen services, increase their operational effectiveness, and deliver proven innovation.</p> <p>We help improve operational effectiveness and service delivery for various programs and schemes like vaccinations, social security, ration, food stamps, issues, complaints, and various municipal, state and federal services</p> <p>We enable the government workforce with collaboration tools like Google Workspace, chats, messaging using Govt own dedicated systems and servers</p> <p>We help agencies for effective preparedness for national and regional emergencies like pandemics, floods, rodents, landslides, terrorism, disputes and have ready panel of experts and advisory committee to manage the situations</p> <p>We assist federal agencies for Smart Transportation, Smart City, Smart Health, Smart Energy, Smart Defense, Smart Governance and many more portfolios like Finance, Housing, and Social benefits, Smart water, Smart Soil, Smart Farms, Smart Corporate, Smart Education, Smart Regulations, and Smart Legal systems</p>
6	<b>Manufacturing</b>	<p>We help manufacturers in building their digital factory from the ground up using Google Cloud's API toolkit. By consolidating data signals from tools across the Google Cloud portfolio, such as web search data, weather, maps, shopping, and more, companies can gain insight into production planning, customer needs, and other business processes. This includes AutoML Vision capabilities that allow SAP customers to automate visual inspection, identify defects early and reduce costs.</p> <p>We leverage upon Google BigQuery that allows manufacturers to quickly analyze large amounts of data from a variety of sources, including SAP systems, production facilities, data lakes, sensors, and more to make more informed decisions. Manufacturers can train customized ML models for accurate forecasts with Cloud AutoML, which uses machine learning to build data-driven predictive maintenance models. With AI-driven demand forecasts, businesses are able to reduce production delays, improve yield at their facilities, and free up working capital.</p> <p>We integrate Google's Visual Inspection solution that will tackle two use cases: detecting cosmetic defects and inspecting product assembly</p> <p>We help OEM in their initiatives like 3D manufacturing, Cobots, automation of various processes, big data, ML for predictive, digital twin, help real time monitoring as per Robotic standards and 5G network, enabling better quality of work, faster feedbacks and lesser accidents</p> <p>We help in easier collaboration, team work and escalation using Google workspace, Google forms and various ready to use forms based on units' compliance needs. We offer digital versions of all the forms with ready to print meeting green quality needs. Data aggregations, inspections and meeting six sigma needs</p>

		<p>We offer reporting using rollup of data right from unit level to ERP and director level reporting allowing easier and quicker resolutions to issues</p>
7	<b>Retail Industry</b>	<p>Our intelligent, data-driven offerings can help transform store operations and digital experiences across the organization</p> <p>We help in Multi-Channel retailing: Media, Internet, Apps, portals allow wide range of retail data analysis and feeds</p> <p>We help you to become a customer-centric, data-driven retailer : B2C data, personalized offers, life time buying experience based offers, various factors like age, time, season, festival,</p> <p>We assist you to drive operational improvement: Intelligent logistics, warehouse, and various streams and sales insight from all units / regions. Personalized, regional application of tax units based on local rules. Intelligence for food and perishable goods, transit status and loss prevention strategies</p> <p>We offer Contact Center services: AI, Chat bots with use to use Pay as you grow models</p> <p>Personalized experience and trials for every item without opening or touching it using virtual experience</p>
8	<b>Banking and Financial sector</b>	<p>We help banks to grow their revenue through new products and innovation : Portfolio diversification, reduced brokerages, underwritings, automate using RPA and AI Reduce your costs by reimagining operations : Business transformation, redundancy removal using automation</p> <p>We assist banks in managing risk and compliance: Use of AI, allied technologies for predictions of risks, defaulters, and various legal issues</p> <p>We setup security systems for regulatory compliances, enable fraud / forgery detections for online theft, and cyber crimes and help you identify non-performing asset and its management for write off procedures as per Govt rules, and mortgage assets management</p> <p>We assist in customers' delight by offering personalized offers based on demographics, needs, age and social security programs</p> <p>Technology upgrades: Use of digital ledgers, quantum cryptos, for digital commerce, assisting staff by automation of accounting, book keeping and various entries using automated robots, RPA and other tools</p> <p>Assisting staff for Home visits and remote meetings, verifications, biometrics, digital payments and approvals using village accountants, integration and analysis of special programs for various occupations and interest waivers for Govt subsidies</p>



9	<b>Health and Life-science sector</b>	<p>We leverage upon Google's foundational solution Healthcare Data Engine in designing various solutions</p> <p>We help in providing secure, continuous patient care using Telehealth and virtual care Patient app management, location-aware services for staff and patient outreach for various engagements, visits and treatments</p> <p>We empower caregivers with collaboration and productivity tools for remote attendance, remote device monitoring and reports, centralized form submissions with assistance and many more</p> <p>We help staff in taking data-driven clinical and operational decisions for doctors, nurses and paramedics and in case of police reports, accidents and crime scenes, use of Explainable AI for court supports</p> <p>We support OEMs for AI based gadgets, wears, uniforms and various engineered tools for programs</p> <p>We help Lab assistants for DNA samples, biological extracts, swabs and specimens for clinical trials, and various collaborative efforts</p> <p>We help in drug discovery and clinical trials for various emerging diseases, &amp; superbugs</p>
10	<b>Oil and Gas , Energy Industry</b>	<p>Google offers limited AI services, however we offer lots of cloud based solutions, migration, monitoring, operations, GIS reports, and many more</p> <p>We offer migration for various streams, IoT and automation of various phases of the oil production, transport, storage, refining, side products management and distribution for downstream business</p> <p>We offer Operations center, incident management, distributors management, credits managements, books management and automation of various report generations, forms and workspace management</p> <p>We modernize and connect across the energy enterprise using integration of service mesh, using Anthos, Smart grid integration, Utilities metering using SAP Energy modules, AI powered intelligence for outages, under/ oversupply of energy, demand forecasting</p> <p>We enhance consumer engagement with intelligent Contact centers, chat bots, technical support and proper, timely resolutions to onsite problems w.r.t. damages, fixtures, repairs and incidents</p>
11	<b>Telecom sector</b>	<p>We help in monetizing 5G by opening and exposing assets and services that enable utility based offers that help bring in revenue, integrate legacy for continued revenue streams</p> <p>We help you to bring operational efficiency to core IT and networks through better</p>

		<p>data management and real time intelligence</p> <p>We help you to modernize to 5G by design of cloud solutions to handle 5G Core, Edge and Client systems, to enable faster and better data transfers, automation of various manual configurations of routers, servers, VM and Infrastructures using code that help faster provisioning and deployment of services for self-help portals</p>
12	<b>Transportation, Logistics, shipment, warehouse</b>	<p>We make your supply chain resilient, sustainable, and transformative while improving customer experience by leveraging upon Google cloud and AI</p> <p>We help you deliver exceptional customer experience by personalizing the delivery, right from factory to warehouse, main distributors and retail outlets, all managed by same software enabling continuity of operations</p> <p>We help you build a resilient and sustainable supply chain by having a safe failover, and handling emergency situations, loads, demands, surges by using flexible, scalable Google Infrastructure</p> <p>We help you in complex schedules and events, incident management using AI based optimization, faster delivery paths and economical way of getting the incidents resolved</p>
13	<b>Real Estate</b>	<p>We help you in property advertisement display in Google; optimizing Google Map based search engines, and intelligent recommender. Few of the benefits delivered are</p> <ul style="list-style-type: none"> <li>• Updated real estate listings in real time and provides deep analytics with Google Cloud Platform</li> <li>• System scales quickly to meet the needs of any customer and launch new markets in a day</li> <li>• Reduced cloud hosting costs by as much as 50%</li> <li>• Personalized properties based on client needs and various parameters</li> <li>• Integration of various financial tools for loans, mortgage, interests, RoI, asset values and many more local market data</li> </ul>
14	<b>Legal</b>	<p>We offer systems that Integrate well with the local legal system, automation of document processes, legal databases for cases with unique features to upload, extract and analyze links, network of criminals, suspects and various defense strategies by AI</p> <p>We offer various legal modules for different cases like domestic, civilian, military courts and various tools to gather, and mine intelligence based on need</p> <p>We leverage upon Google's Explainable AI as proof of decision to assist judges in taking the best decisions and continuity of cases running for several years and of national importance with transfer of files / cases to designated parties</p>
15	<b>Space</b>	<p>We assist in newer service models like Ground Station as a Service that offers sharing/ leasing of satellites and ground equipments and billed for only the usage</p>

		<p>We help you in the Network Edge assisting the upstream and downstream traffic to business and end users for satellite phones, satellite internet and other back office operations</p> <p>We integrate Google space image repositories, Google Earth, geo-tagged space coordinates all that can be used using API calls and for maps and location finders</p> <p>We help your program in Satellite inventory management, space programs administration and space data mining for low orbiting satellites, meteors, and various objects</p>
16	<b>Hotel and Hospitality</b>	<p>We design guests solutions for a more helpful in-room experience by use of Google's Nest Hub smart display in their hotel room that enables services to play music, order fresh towels, check out, and much more</p> <p>We help you in integration of Google Assistant that acts as a kind of personal concierge for hotel amenities</p> <p>We help you in your Smart hotel rooms solutions for touch less, non-human delivery of food and items to room to avoid Covid-19 and contamination</p> <p>We help your hygiene apps to detect various types of bad food , recommend daily allowance and various healthy feedback from personal gadgets</p> <p>We help operators in integration of various hotel search engines and local language translations , delicacies and drinks to your app</p>
17	<b>Industrial research</b>	<p>We offer site visits by our panel of experts and licensed engineers who will inspect, log and interview related area staff / managers that enables collection of first hand information for lab based report development. We offer digital gadgets, instruments and lab tools that enable deep understanding of the state of operations and various sampling techniques required for a matured report.</p> <p>We offer temporary staff who will be at your premise to gather, study, analyze and report any findings to clients and staff for further investigation and writing of thesis for future research</p>

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