NAPINO
DIGITAL SOLUTIONS

# From Ideation to Value Generation

Private & Confidential

About Napino

- India's leading electronics product design and manufacturer

- 25+ years of experience in the automotive and IoT industry

- 25+ Mn units manufactured annually

- 5000+ strong workforce spread across India

- Setup of 12 SMT lines and 14 Assembly Lines with new lines under progress

- Reliable supply chain partner to Tier-1 Global clients

- 150+ R&D engineers and best in class equipment's and tools enables to produce production grade devices ranging from asset trackers to complex camera-based products

- Partnerships with global leaders (Shindengen, Continental, Fallbrook, and Domino)

R&D Centres - 2

◆ R&D Center

◈ Design Center

HARIDWAR
BHIWADI
GURGAON
HALOL
PUNE
FUTURE
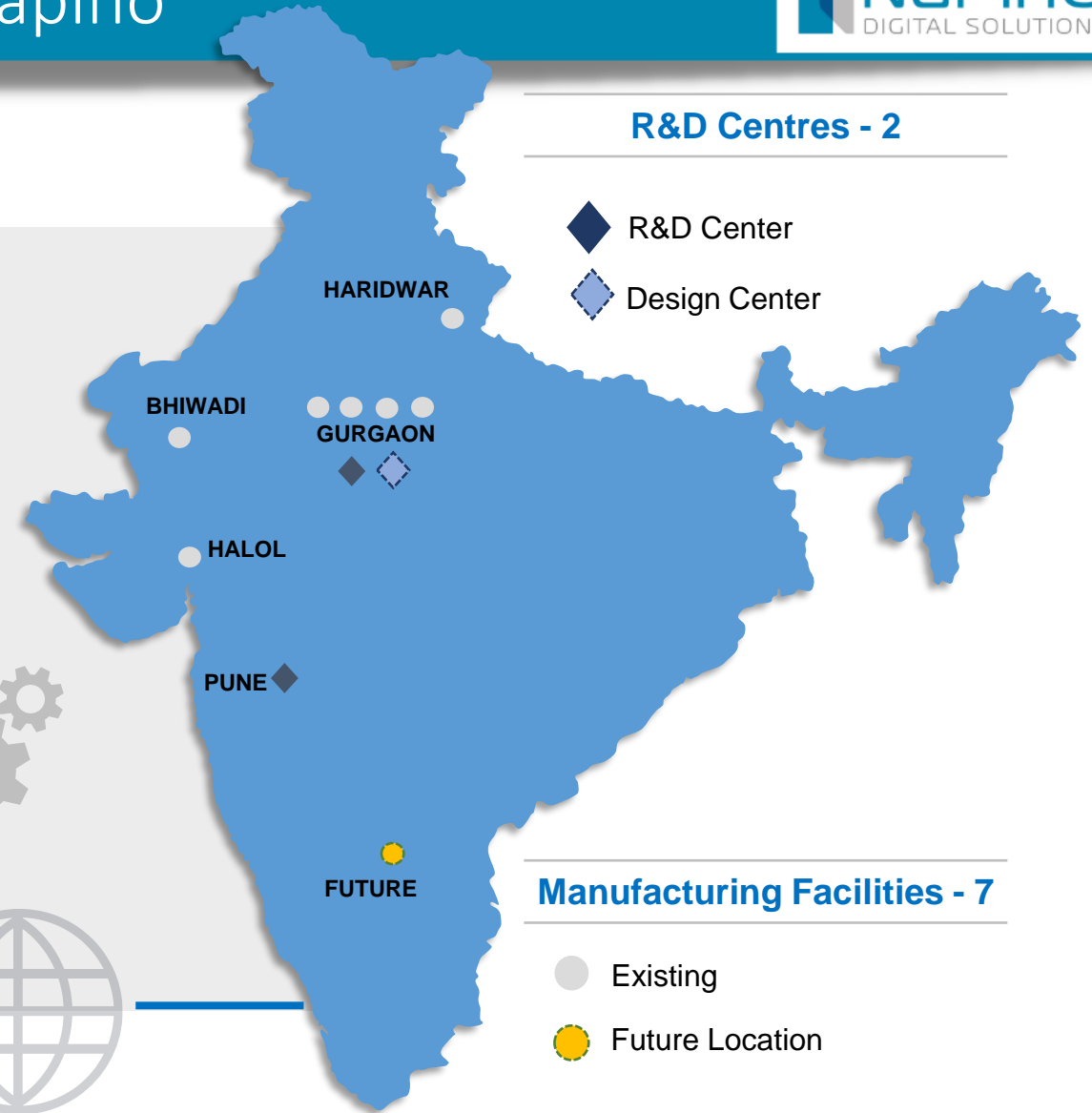
Manufacturing Facilities - 7

⚪ Existing

🟡 Future Location

R&D Centre - Approved by Department of Scientific and Industrial Research, Ministry of Science Government of India

Cloud Integration

Analytics

App Dev

Support

DevOps

Full stack ODM services

- Electronics/IoT product design
- Prototype to mass scale manufacturing
- Testing & certification
- Value Engineering / Value Analysis
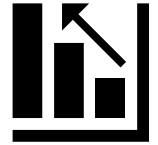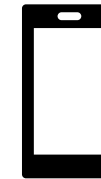- Supply chain and Inventory management

Products / Solutions

- Products (Telematics; BLE Tags; STEM; Gateways)
- Transportation and Logistics
- Industry 4.0
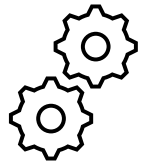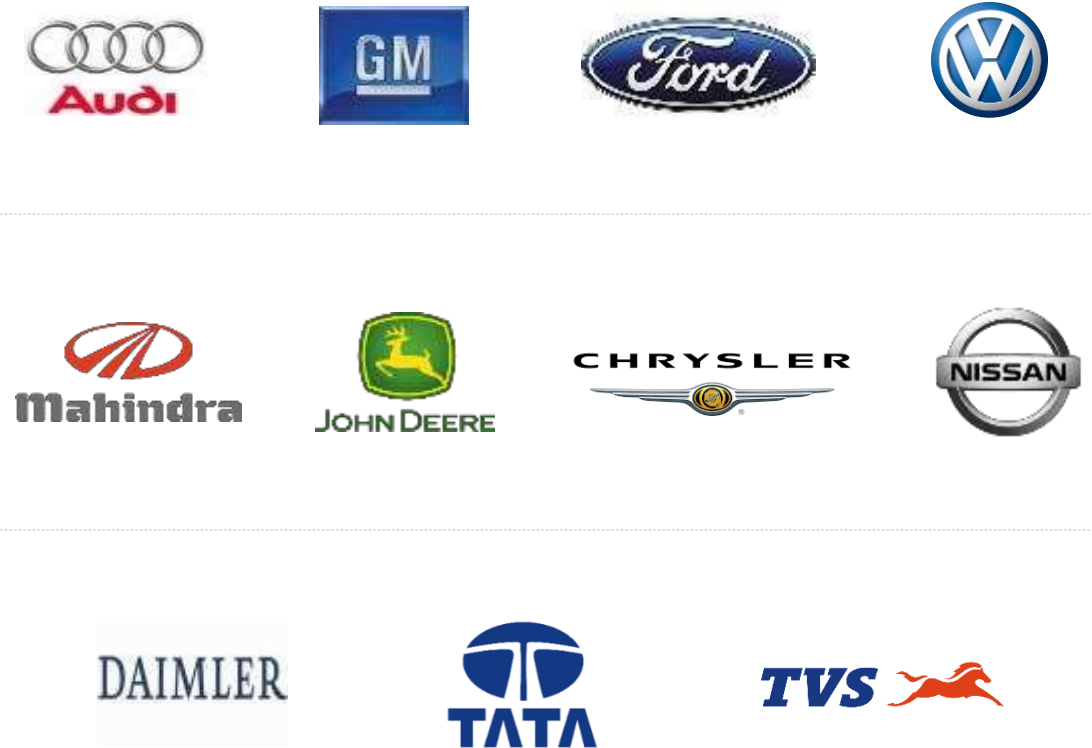- Electric Vehicles
- Telecom Infra and devices

Services

- Hardware Lifecycle Management
- Cloud Integration
- Application Development
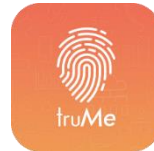- Managed Support & Services

Tier 1 Supplier

Tier 2 Supplier

Approved for Supplies to

Customers

Partners

NAPINO
DIGITAL SOLUTIONS

ADAS Camera　　Telematics

Automotive

Asset Tracker　　Environment Tracker

Logistics

Personal Tracker　　Smart Watch　　Smart Tag

Smart Wearables

Router　　Outdoor Access point　　Edge Gateway

Telecom

Smart Energy Gateway　　Industrial Tracker

Industry 4.0

Wi-Fi Door Bell　　Smart Speaker　　Smart Wi-Fi Plug　　Smart BLE Lock　　Surveillance Camera
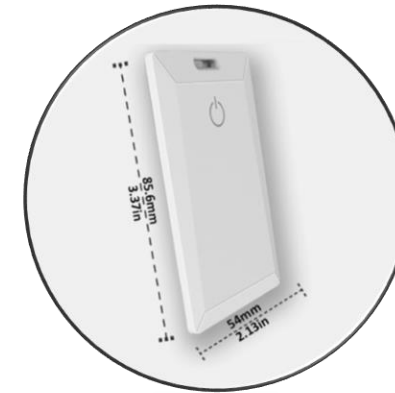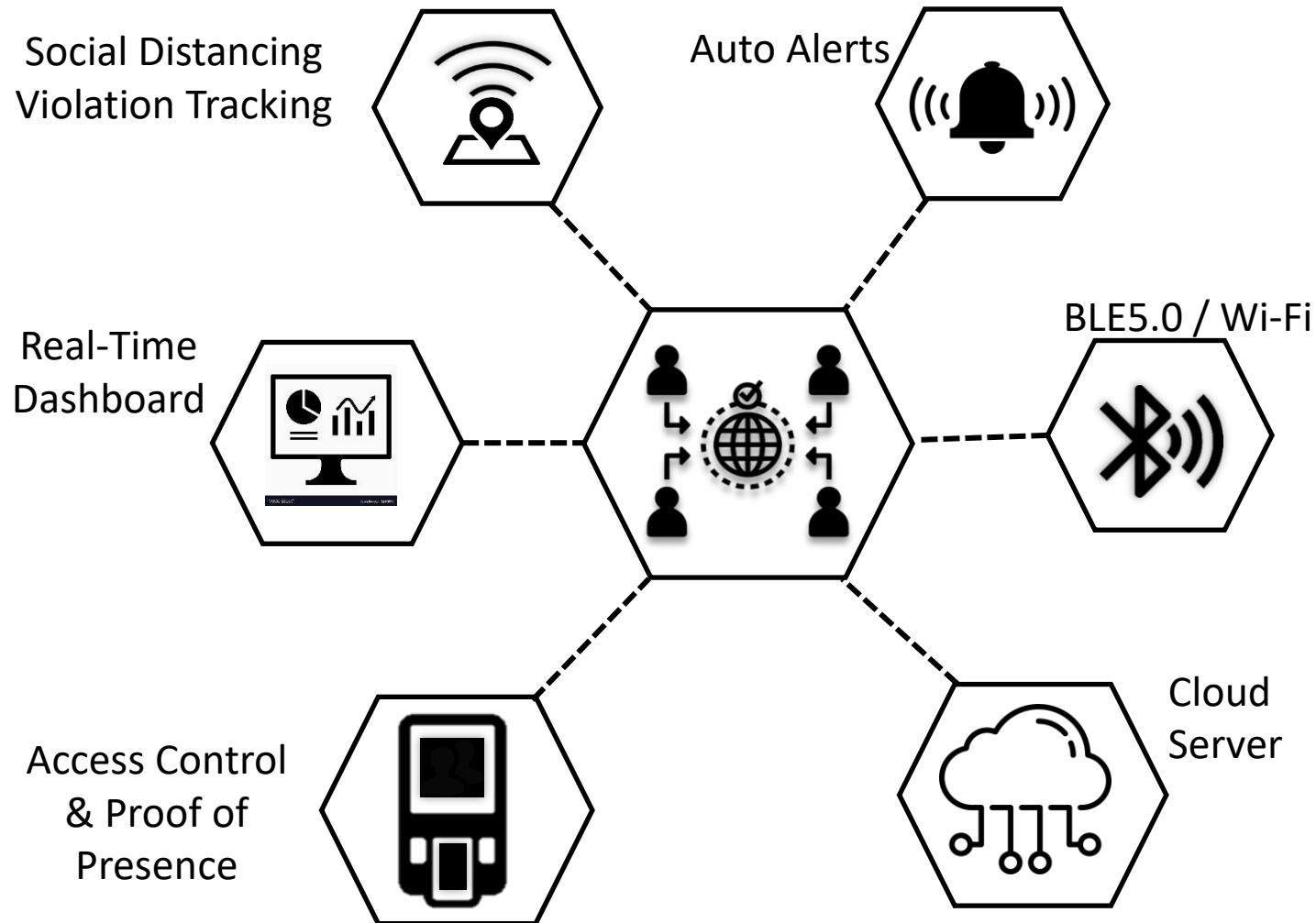
Smart Home

Key features:

- Live Remote Monitoring
- 2-Way Talk
- Person Detection
- Face Recognition
- Baby Cry Alert
- Alexa built-in Entertainment
- Smart Hub
- Night Vision

Key Benefits:

- 24x7 live remote monitoring with Two Way Talk
- Store known faces & create custom auto alerts on your phone
- Advanced AI, notify whenever a person or a motion is detected
- Instantly notifies whenever it detects baby crying, ensuring any critical moment is not missed
- Keeps the home connected and safe

Parameters	Specs
RAM	2GB
ROM	16GB
External Storage	128GB
ZIGBEE Support	Yes
Wi-Fi	2.4GHz 802.11 b/g/n
Bluetooth	BT 4.1
Weight	600 grams
Dimensions	101.2 x 104 x 184.1 mm
Screen	2.8inch touch screen IPS Display
Operating System (OS)	Qualcomm® Vision Intelligence Platform
Camera & Field of View	3.2MP, 1080p HD videos with a 140 degree ultra-wide
Audio	2 Far Field mic array with Noise cancellation • Six-meter range voice activation for Alexa • Two-way calling • Hi-Fidelity 5W dual-speaker • Tap or hold + or - for volume up/down

Social Distancing Violation Tracking

Auto Alerts

BLE5.0 / Wi-Fi

Real-Time Dashboard

Access Control & Proof of Presence

Cloud Server

BLE Tag

GATEWAY
(BLE, Wi-Fi, Ethernet)

Features:
- Attendance Tracking
- Geo-fencing
- Asset Tracking
- Social Distance Violations
- Notifications & Alerts

Key features:

- Engine ON Detection
- Battery Status
- Real Time Location
- FOTA
- Accelero & Gyro meter
- CAN Transreceiver
- Panic Detection
- Accident Detection
- Tow Detection etc.
- AIS140 automotive standards compliant

Key Benefits:

- Reduced warranty expenditure
- Early detection of epidemic failures
- Usage based business models for Vehicle Insurance & AMC
- Analysis of the driving pattern of the drivers

Parameters	Specs
Microcontroller	16 bit
GSM	2G /GPRS
GPS	GNSS
Flash	128M
Accelerometer	3D
Gyroscope	3D
Bluetooth	BT/BLE
Firmware on the air (FOTA)	Yes
IP	IP 67
Internal battery backup	Yes
Operating Temperature	-20 to 60 ℃
Communication	CAN 2.0
AIS 140	Yes

Research & Development Capabilities

150+ R&D Engineers

Best in class Testing, Manufacturing Infrastructure

Cloud & Application Development

Ideation to Value Generation

Embedded Firmware

Scripting (Tests, Automation, Quality Control, etc.)

Domain & Technology Expertise

Telematics

Consumer Electronics

Industry 4.0

INDUSTRY 4.0

Vision Computing
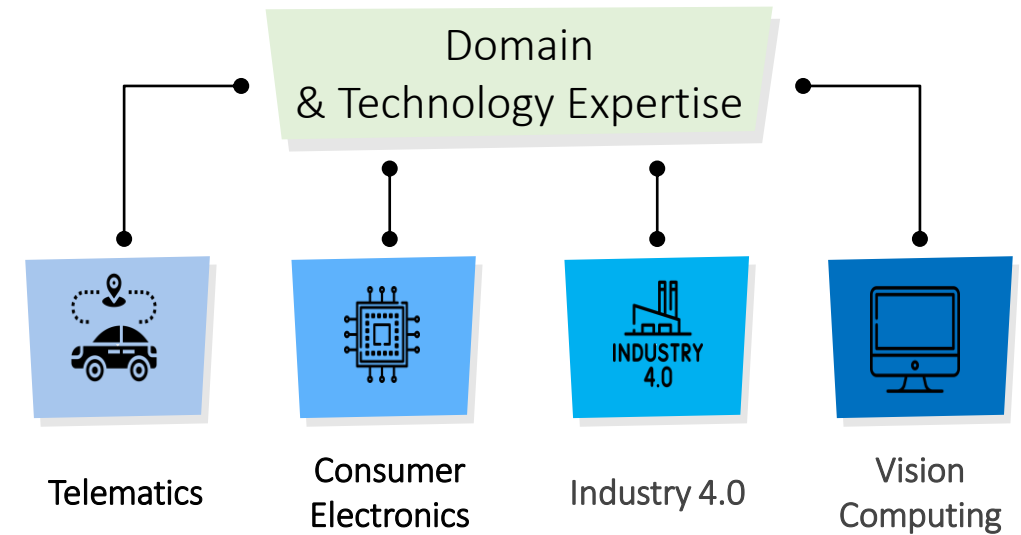
Ideation

Definition

Designing

Prototyping

Sample Validation

Production

Hardware

- Conversion of customer/project requirements into hardware specifications for circuit design

- Hardware verification as per the specifications and standard

- Mechanical architecture design (3D, 2D, stack-up analysis)

Software

- Conversion of project requirements into complete software architecture, software modules and their interactions

- Design of customized dashboard / GUI

- iOS/Android Application Development

- Agile software development process

Radio Technologies

WIFI

2G 3G 4G 5G

Z-WAVE

NB-IoT

zigbee

LoRa

Tools

Motor Industry Software Reliability Association C (MISRA C)

ETAS- INCA for calibration

ETAS- LABCAR for Hardware in loop simulation

ANSYS software and Thermal imager for thermal analysis
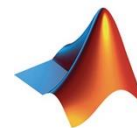
MATLAB for modeling and simulation

Cadence for circuit design and simulation
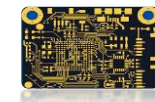
Allegro for PCB designing
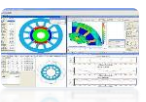
SPEED software for electric motor design

Key Features (SMT section)

- Component mounting
  - Min : 0402mm/ 01005 inch
  - Max : 120*90*T 30mm
  - Accuracy : 30 Micron

- Component Verification and Traceability

- In line Solder Paste Inspection (Make: Kohyoung)

- 3D Automatic Optical Inspection (Make: Omron)

- Continuous profile monitoring of reflow oven (Make: KIC)

- PCB Cleaning (Make: Unitech)

- ESD (Electrostatic) Control work station

- Clean room with class 100,000

- Nitrogen and lead free compatible soldering

- In line X Ray Machine (Make: Viscom)

- Pin insertion machine (Make: TE P350)

- Selective Soldering (Make: ERSA)

- SAP/ iTAC MES Suite for control & Traceability
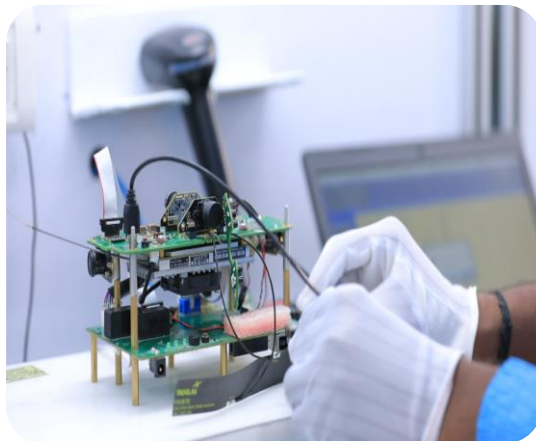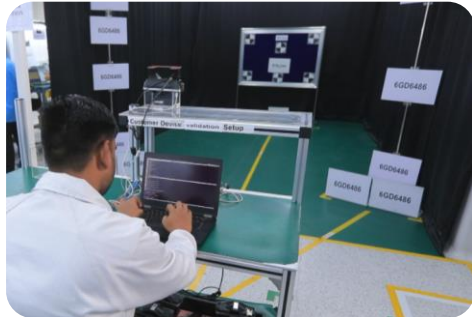
- Digital Call Box
- Analog Call Box
- Air Showers
- ESD checker system
- 100x Microscope
- Profile Tuning Suite
- ESD protected production floors
- Chassis Dynamometer
- Vehicle Cold Chamber
- Electro Magnetic Interference
- Electro Magnetic Compatibility
- Electro-Static Discharge
- Dark Room for camera lens calibration

- RF Testing
- Temperature & Humidity Test
- Bench Top Environmental Chamber
- Salt Spray Chamber
- Dust Chamber
- Water Spray
- Thermal Shock
- Vibration Test
- Transient Voltage
- ESD Simulator
- Oscilloscope

- Resistance Meter
- Power Analyzer
- Thermal Imager
- Function Generator
- Insulation Test
- Electronic Lead Test
- LCR Meter
- Salt Spray Chamber 2
- Laboratory Oven
- Highly Accelerated Stress Test
- ACG Rig Test Bench (Vehicle Simulation)
- Switch Endurance

Certifications for Electronics product is required as regulatory clearance in various countries for:

- **Emissions**
- **Safety**
- **Environmental impact**

Certifications facilitated:

- FCC/CISPR 22 Certification.
- CE Marking
- UL Certification
- ROHS or WEEE Certification

- CSA (Canadian Standard Association)
- BIS (Bureau of India standards)
- And many more

All our Plants are certified for **ISO 9001, IATF 16949, ISO 45001 & ISO 18001** Standards

Best Vendor
Hero Honda Motors Ltd

TPM Excellence Award 2018 (A) by Japan Institute
of Plant Management-Napino Haridwar Plant

Direct-On-Line
Supplier To Hero MotoCorp

Silver Award For
On Time Delivery by Yamaha

First Prize in Business Excellence by
ELCINA Electronic Industries Association Of India

Award for Consistent Quality
Suzuki Motorcycles India Pvt Ltd

Consecutive QCDDM Best
Supplier Awards by
HMSI

Super Achiever's Award by Economic Times
IMEA in Partnership with Frost & Sullivan

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