



Mindtree

Connected homes

Create a safer, healthier and greener world for your customers



Welcome to possible

Connected homes is a trend that is ushering in a new age of convenience and convergence for users to enjoy a high quality of life, in the comfort of their homes. Health and wellness are more important than ever. Energy conservation is gradually finding its way to homes and home security too, is assuming greater significance. Technology is a key enabler towards fulfilling these needs of a better and safer living. Mindtree, with its suite of "device+" offerings for the connected home segment, is doing just that: enabling our customers to create a happier, healthier, greener and safer world for their customers. Our offerings include extensible frameworks, solution accelerators and niche service offerings enabling faster time-to-market, cost savings and end-to-end product support for all the players in the connected devices ecosystem.

Our focus is on three areas: energy management, home security and home health care. Our customers are device manufacturers, Independent Software Vendors (ISVs) and service providers such as TSPs and utilities.

Energy management

Mindtree has built deep domain understanding and rich experience across the entire value chain, from semiconductors, M2M integration, system and application software, business intelligence and data analytics to cloud enablement. Mindtree has helped leading technology and CIO organizations to build successful products and solutions for the smart grid. Our expertise traverses the breadth of the smart energy domain as shown below:

Field equipment	: M&D devices, IHDs, smart meters, home gateways, smart appliances, etc.
Protocols	: IEC 61850, IEC 60870, DNP3, Modbus, DLMS/COSEM, PSEM, etc.
Communication	: Zigbee, WiFi, IR, Bluetooth, GSM/GPRS/3G/LTE, etc.
Application integration	: CIM, Multispeak.
Management software	: SCADA, DMS, OMS, MDMS, EMS, D/R.
Data presentation	: Mobile and web applications, HMI, UI, etc.

Home security

Mindtree has built excellent credentials on video surveillance as well as the access security domain, offering our device+ services all the way from system design to cloud enablement and professional services. Surveillance is one of Mindtree's core expertise areas and we are experienced in executing multiple product developments on different platforms. We have also invested heavily in this domain, building several market-ready IPs like VMS solutions, video analytic algorithms and ONVIF stack enable faster time to market for ODMs, OEMs and system integrators. In the security domain, we have extensive expertise in building products and solutions involving a wide variety of standards like magnetic, ISO 14443, ISO 18092, HID iClass, AWID and so on, with special focus on wireless / IP connectivity and multi-modal / multi-technology solution.

Home healthcare

Mindtree has worked with device manufacturers, technology providers, cloud platform providers and mobile app developers in the telehealth domain. Our expertise in Bluetooth and the IPs we own, have helped many device manufacturers add connectivity to their devices. Our device+ capabilities such as mobility and cloud expertise enable these connected personal healthcare devices to communicate with the external IP world. In addition to building end-to-end telemedicine platforms, we have also carried out some marquee projects in this space, to enable remote patient monitoring applications.

Solutions and frameworks

- Customizable KPI dashboard for utilities to track performance across various KRAs
- Mobile workforce enablement solutions for the sales and service personnel in the utility industry
- MAPLE – Enterprise Mobile Application Platform for utilities and energy ISVs
- MWatch – Integrated remote monitoring platform for AMS and smart meter monitoring
- RUBIC – Re-usable Business Intelligence components for data analytics

- ATF framework for testing of communication products in the connected home environment
- Selenium framework for web application test automation
- Mindtree Mobile Automation Framework (MAF) for supporting test automation for mobile webs and devices
- IP camera stream simulation test bed

Our service offerings and solutions

Custom product engineering: Mindtree has end-to-end capabilities to convert your product ideas to reality. We undertake outsourced product development as a service and have all the necessary expertise and infrastructure to engineer products to suit your needs.

Independent testing services: Mindtree's independent testing business unit is 2600+ strong with over 10 years of experience in testing services from hardware and software products to enterprise applications. We have several solutions and frameworks to support your testing and automation needs which can help to reduce your overall testing costs by at least 15%. We have been recognized as a quality vendor in the testing space by leading analyst firms such as Gartner and Forrester Research and are part of standardization bodies like ISO/IEC 29119.

Infrastructure management and tech support: The fastest growing practice in Mindtree is our Infrastructure Management and Technical Support (IMTS) group. This practice has over 1400 Mindtree Minds, has completed 125+ successful engagements and is currently working with 60+ customers. We have invested significantly in setting up best in class NOCs, voice gateway and lab environments to enable high quality RIM services. Mindtree IMTS provides its services through a proprietary service delivery platform called MWatch.

Mobility services: Mindtree has a dedicated practice which focuses on mobility. We have devised more than 500 mobile solutions till date, for device vendors, ISVs and enterprise clients of ours. We provide full lifecycle services on various platforms including Android, iOS, Blackberry, Windows phone, Symbian and BREW. Mindtree

has defined and designed solution accelerators, that reduce the time to market for our customers.

Analytics and information management services:

Mindtree's analytics and information management services practice consists of more than 800 experts, delivering transformational solutions across analytics, Business Intelligence (BI), information management and research. Our cross-functional teams include business and data analysts, statisticians, solution architects, BI analysts, data integration specialists and SMEs. We have frameworks and accelerators such as Re-Usable Business Intelligence Components (RUBIC) and trade promotions management, to ensure faster time-to-market at lower costs.

Cloud-related services: Mindtree provides complete engineering and enablement services on popular public clouds like Amazon web services, Google AppEngine and MS Azure services. Mindtree's large cloud engineering community (600+ members and growing) has developed its own platforms and tools, which help in creating the right framework for development and testing of cloud, -enabled applications. Our inhouse MiBiz tool helps customers address common cloud engineering challenges. Apart from a host of other enterprise parameters, it helps them decide which apps to move to the cloud first by assessing the level of maturity.

Machine-to-Machine (M2M): Mindtree has end-to-end service capabilities in the field of M2M for various verticals including smart energy, home automation, consumer systems, healthcare, telematics and navigation. Our customer base consists of device manufacturers and software vendors as well as service providers. We specialize in device and application management for M2M endpoints and provide these as a managed service for our customers.

Success stories

- Development, maintenance and enhancement of a home energy usage monitoring portal based on the Azure platform

- Web-based energy curtailment software solution for, demand response management and the monitoring and communicating of consumer energy data usage analysis
- Development, integration and deployment of a MDMS solution for a US based utility
- A remote infrastructure monitoring solution for utilities to manage energy readings from remote equipment such as DG sets, transformers, etc., with built-in support for alarm management, configuration, performance data collection and authentication
- Offshore engineering team for a tier-1 ISV in the energy space, involved in testing and development on MDMS and customer service management applications
- Enterprise green dashboard development, which interfaces with the internal SAP system to collate information related to energy, air, travel, water and waste
- Common Information Model (CIM) – based integration of power SCADA for a Japanese energy customer
- Mobile solutions for the sales and service personnel in the utility industry
- Connectivity of heartbeat monitor equipment to Microsoft health vault enabled via Bluetooth-connected mobile application
- Backend application migration for an Australian power company, which helped in multiple ways including cost reduction via virtualization
- Decision support system for managing large volumes of real-time data generated from meter data management applications
- Customizable KPI dashboard for utilities to track their performance across KRAs
- SaaS enablement, cloud migration and integration of back-end applications for a service provider in the energy space
- Infrastructure management for an Indian major in the oil and gas industry, including automation of several work flow processes
- Development of an Android-based display device and mobile applications for energy monitoring (to display data like current output, power consumption, etc.), for a European major in the alternate energy segment
- Enabling a European customer to carry out comparative product analysis and benchmarking for their fire safety products
- Enabling a semiconductor customer to create a lighting controller solution using their latest chipset platform
- Helping our customer save more than 2M USD per annum by re-engineering their home heating control products for cost reduction
- Automating testing for a home surveillance system through our camera virtualization software
- Enabling M2M connectivity for an insulin pump used in patient care
- Mindtree integrated solutions for personal health monitoring

About Mindtree

Mindtree is a global information technology solutions company with revenues of over USD 400 million. Our team of 11,000 experts engineer meaningful technology solutions to help businesses and societies flourish. We enable our customers achieve competitive advantage through flexible and global delivery models, agile methodologies and expert frameworks.