

ConnectM M2M Application Services





The need

Organizations today are envisioning innovative services which are new and customer focused that are powered by real-time information from connected devices. Executives and leaders of such organizations have learnt that intelligence from the real-time information can be used for enhancing profitability, competitive edge or even generate new revenue streams. But they are not clear on what is the best way to move forward.

The Machine-to-Machine(M2M) applications are generally required to provide such 'Live' or 'real-time' information from remote locations or provide health, utilization, health, productivity information from a group of similar static or mobile asset. The events and data from these devices need to be analyzed to produce actionable intelligence for improving the outcomes of an organization.

The application needs to be flexible to help business users to quickly develop reports and dashboards on a day to day basis. Conventional approach of application development may pose a challenge to keep pace with the changing needs of business to get actionable information in real-time.

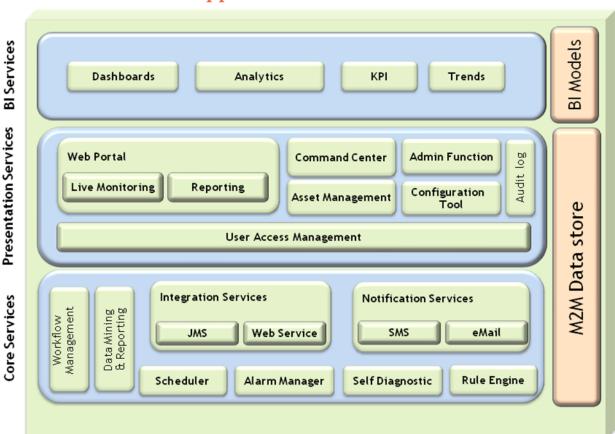
The Solution

ConnectM's M2M Application Services provides a robust and scalable framework for organizations to develop customized end user applications in quick time. The application provides all the basic building blocks of a web application along with flexibility to build on-line reports and dashboards to suit business needs. The extended Business Intelligence service framework allows developers to provide 'advanced analytical' capability to process huge amount of information and produce actionable intelligence.

ConnectM has been developing various M2M applications over years using the application service framework in different verticals like Telecom, Utilities, Fleet, Industrial, Construction and Enterprise and has 'ready to use' applications on cloud for some of the above verticals.

The application framework is designed to work with any underlying 'M2M platform' from third party platform providers or one from ConnectM's Soluton Delivery Platform using its industry standard SOA architecture to connect to information source on web services to build custom applications for enduser.





M2M Application Services Framework

Application Services - Capabilities

- Authentication and Authorization
- Navigation on Map
- Alert Notification (SMS/Email)
- Trouble Ticketing workflow management
- Graphical reports and trends
- Data Export to Excel, PDF
- Web portal
- User roles management
- Customizable to work with legacy/existing platforms

Business Intelligence Services

- Rich and interactive dashboards
- Quick Data discovery and Analytics
- Key Performance Indicators (KPI)
- Mobile analytical reporting



New Applications for different industry segment

ConnectM application services framework allows one to build a completely new rich end-user application for any industry segment using the existing building blocks of the services that include various workflow management, event management, reporting, and analyzing functionalities. The framework approach reduces risk of investing time and resources to develop applications from ground up and it accelerates time-to-market. It allows the product development teams to focus on solving business problems rather than figuring out technology stack to deploy rich applications on the cloud.

Readily Available Applications

ConnectM has developed a host of M2M applications that can be readily be used by organizations looking for similar applications. These applications are available on cloud as Software-as-a-Service model that can be launched in a very short time by 'connecting' the application to information source. The applications can be hosted and managed at customer data center or at ConnectM cloud infrastructure.

A) Passive Infrastructure Management for Telecom Tower companies

ConnectM's Telecom Tower management Solution provides following functionalities that help our customer realize immense benefit

- 1. Energy Measurements Enables dispute free vendor payments and operators billing
- 2. Alarm management Trouble ticketing with flexible escalation workflow
- 3. Notification Alert field staff by SMS, escalations by Email
- 4. Tower Equipment Health status Battery health status, Fuel level at DG sets
- 5. Access Management Remote configurations and management of Tower Access
- 6. Centrally managed NOC Services
- 7. Asset Life Cycle Management
- 8. Preventive Maintenance workflow
- 9. Enterprise ERP Integration Enables seamless information flow with in enterprise
- 10. High end analytics for optimizing consumption, Analyzing equipment performance, monitor operations efficiency

B) Automated Meter Reading

ConnectM's AMR solutions for Energy and Water has following capabilities that help our customers to derive benefits of accurate measuring and there by arresting unaccounted consumptions.

- 1. Consumption monitoring Enables accurate billing
- 2. Pilferage detection Helps controlling unaccounted usages
- 3. Billing Automation reduces manual visits and increases overall efficiency
- 4. Enterprise ERP Integration Enables seamless information flow with in enterprise
- 5. High end analytics Identify distribution of consumptions across zones, helps plan distributions and billing plans.



C) Fleet Management

ConnectM's fleet management services supports following capabilities for customers to readily locate and manage the mobile assets

- 1. Location Service Live Tracking, Accessing vehicle path for a given duration
- 2. Alert Service Identification and notification critical events
- 3. Advanced data management Temperature, Vehicle health
- 4. Driver Behavior Analysis For improvements and optimization
- 5. Logistics Management Route optimization

D) Industrial Equipment/Asset Management

ConnectM's Industrial Applications supports following capabilities for equipment manufacturers to analyze the health of their equipments at their customer location and provide remote service

- 1. Equipment Health Status Real time status of health
- 2. Alert Service Identification and notification critical events
- 3. Utilization monitoring Accurately track run-hours to support warranty/AMC terms
- 4. Abnormal Usage Analysis based on frequently occurring events
- 5. Remote Configurations Avoid field trips for changing settings/configurations

E) Remote SCADA for Process Industries

ConnectM's Remote SCADA applications supports following capabilities

- 1. Live Status Current Process Status
- 2. Productivity Status Provides accurate production status
- 3. Remote PLC programming Upload/Download of PLC programs from remote location
- 4. Remote Configuration Changes Supports PLC configuration remote settings

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