

## Standardized M2M/IoT Service Delivery Platform

- Scalable Horizontal Service Delivery Platform that Conforms to the ETSI TC M2M standard
  - Adaptable to the emerging oneM2M Global M2M/IoT standard
  - Removes dependency on Proprietary Solutions
- Develop M2M Services Applications across multiple Verticals
  - Fast time to market
  - Reduced development costs
- Develop traditional M2M and emerging Internet of Things (IoT) service applications
- Configurable and easy to use SDK

Advances in wireless communications, embedded systems, and IP networking have led to inexpensive devices, sensors, and actuators with increased computing power and low power consumption. These advances provide a huge opportunity for growth in M2M/IoT service applications. Future solutions will connect billions of existing and new devices, including high-end smart mobile terminals, low-cost resource-constrained wireless sensors, and Radio Frequency Identification (RFID) tags. M2M/IoT technologies can benefit a broad range of use cases for smart grid, telematics, eHealth/mHealth, vehicular networking and systems, industrial control, home automation, and environmental monitoring.

Current markets, however, are highly fragmented and most service application offerings have been designed independently for specific vertical applications. This leads to lengthy and costly projects for each new application which in turn impedes large-scale M2M/IoT deployment. Today's deployments also pose additional technical challenges in managing large numbers of disparate devices, providing security guarantees, and implementing service discovery.

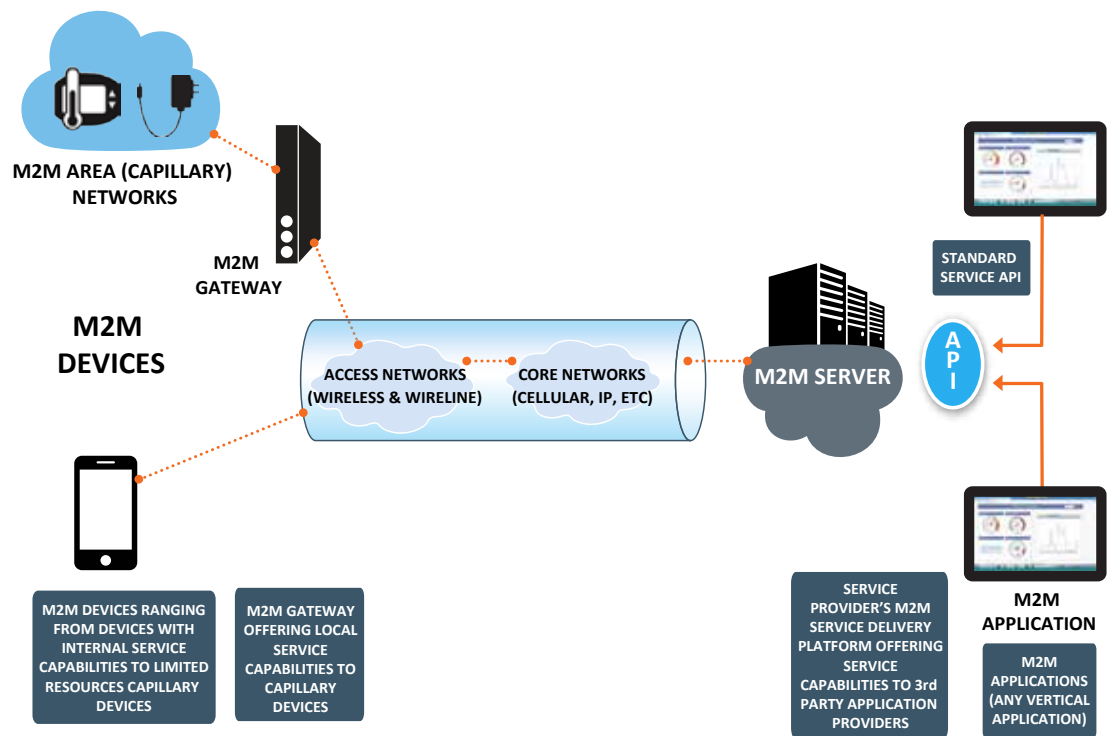


The ETSI TC M2M/IoT standard and the emerging oneM2M global standard helps accelerate the development and reuse of service layer solutions. InterDigital's Standardized Service Delivery Platform (SDP) provides a middleware solution with a set of common Application Programming Interfaces (APIs) for scalable and horizontal M2M/IoT services that enables:

- Rapid and efficient service application development
- M2M/IoT service operators to smoothly integrate different applications and manage the whole M2M/IoT eco-system with greatly reduced CAPEX and OPEX
- Device vendors to expand and improve their products with value-added features and interoperability with different devices

InterDigital's Standardized Service Delivery Platform (SDP) consists of a Service Capability Layer (SCL) for the Network, Gateway, and Device nodes and APIs that facilitates communication between SCLs and applications.

## M2M/IoT Service Delivery Platform (SDP)



## Standard APIs, Security and Device Management Lead to Lower Cost, Faster Time to Market and Improved Competitiveness

- Conforms to ETSI TC M2M Release 2 standard Application Programming Interface (API)
- Compatible with the emerging oneM2M Global standard
- Standards-compatible service oriented architecture provides faster service applications development and lower development costs
- Standards-compatible interfaces and procedures enable communication between device and remote applications thereby increasing service revenue and profitability
- Service packages can be reused, shortening time to market and reducing cost
- Advanced standardized architecture makes larger networks practical, with improved reachability and scalability
- Seamless connections and interpretability of disparate devices and services gives faster time to market, enables faster data analysis and minimizes maintenance calls
- Offloading to Operator-trusted M2M Gateways at the edge reduces M2M traffic in the core network, leaving more capacity for higher value traffic
- Configurable and easy to use SDK available online facilitates application development and use of the Service Delivery Platform

FEATURES	BENEFITS
Service Oriented Architecture	<ul style="list-style-type: none"> <li>• Enables providers to generate new revenues from M2M/IoT via service platforms</li> <li>• Increases profit and ROI</li> </ul>
Larger Networks	<ul style="list-style-type: none"> <li>• Improved reach and scalability for connected devices</li> <li>• Flexibility in choosing transport network</li> <li>• Increased revenue growth improves ROI and profitability</li> <li>• Network agnostic</li> </ul>
Seamless connections and interpretability of M2M/IoT devices and services	<ul style="list-style-type: none"> <li>• Shortens time to market</li> <li>• Enables faster data analysis and fewer maintenance calls</li> <li>• Improves OpEx</li> </ul>
Global standard interfaces and procedures	<ul style="list-style-type: none"> <li>• Allows applications (remote and device based) to communicate, enabling a variety of M2M/IoT services</li> <li>• Reduces standardization overlaps and confusion</li> <li>• Drives down cost and increases demand</li> <li>• Enables service revenue growth, improves ROI and profitability</li> </ul>
Standard applications and protocols	<ul style="list-style-type: none"> <li>• Enables re-use of service packages, giving lower total product/service cost and faster time to market</li> <li>• Increases market opportunity</li> <li>• Equipment compatibility among vendors</li> <li>• Enables service revenue growth, improves ROI and competitiveness</li> </ul>
Offloading to operator-trusted M2M/IoT gateway at the edge	<ul style="list-style-type: none"> <li>• Minimizes M2M/IoT traffic in the core network</li> </ul>
Software Development Kit	<ul style="list-style-type: none"> <li>• Allows user to configure the SDP to their needs <ul style="list-style-type: none"> <li>• Including the ability to develop a customize-able SDP deployed on virtual machines (i.e. Rackspace)</li> </ul> </li> <li>• Provides API libraries, sample applications, and tutorials</li> <li>• Facilitates use of our virtual M2M/IoT Server (our Network M2M/IoT SDPentity)</li> </ul>
Advanced Features supporting the Internet of Things (IoT)	<ul style="list-style-type: none"> <li>• Semantics</li> <li>• Analytics (Big &amp; Small Data)</li> <li>• Identity &amp; Event Management</li> <li>• Negotiation Services</li> <li>• Advanced Discovery</li> </ul>
Interworking/ Proxy Support for Proprietary Systems	<ul style="list-style-type: none"> <li>• Enables device/app interoperability between standards-based and proprietary systems</li> <li>• Interim solution while proprietary solution vendors migrate to the one M2M standard</li> </ul>
REST/Web-friendly based solution	<ul style="list-style-type: none"> <li>• Makes it easier to interoperate with applications and interwork with proprietary systems</li> </ul>
M2M Server can be deployed as Cloud-based implementation	<ul style="list-style-type: none"> <li>• Enables scalability, extensibility (adding new features) and distributability</li> </ul>

## About InterDigital®

InterDigital develops fundamental wireless technologies that are at the core of mobile devices, networks, and services worldwide. As a long-standing contributor to the evolution of the wireless industry, we solve many of the industry's most critical and complex technical challenges years ahead of market deployment. Our advanced solutions support more efficient wireless networks, a richer multimedia experience, and new mobile broadband capabilities. Accordingly, we have established licenses and strategic relationships with many of the world's leading wireless companies.

---

InterDigital, Inc.  
200 Bellevue Parkway, Suite 300  
Wilmington, DE 19806  
[www.interdigital.com](http://www.interdigital.com)

---

InterDigital is focused on supporting the entire eco-system by providing advanced wireless technologies for all M2M markets and the emerging Internet of Things.



Please visit  
<http://www.interdigital.com/iot>  
for more information on InterDigital's  
M2M/IoT Services Delivery Platform solutions.

© InterDigital, Inc. 2013. All rights reserved. This work was prepared and contains information supplied by, InterDigital, Inc. and/or its affiliates (hereinafter, "InterDigital"). All information, including performance information, contained herein is provided on an AS IS basis without any warranty as to its accuracy or results. InterDigital expressly disclaims any and all liability for any errors or omissions. InterDigital reserves the right to modify this work and the information contained herein without notice. No part of this work may be reproduced, in whole or in part, except as authorized in writing by InterDigital, irrespective of the type of media in which the information may be embodied. "InterDigital" is a registered trademark of InterDigital, Inc.