



Device Identifiers

ThingSpace Connectivity Management

2G / 3G M2M device identifiers defined

Identifier	Description
Electronic Serial Number (ESN)	<p>Manufacturers assigned ESNs to CDMA devices until about 2006. ESNs uniquely identify devices. To verify that the device is not reported lost or stolen and that all subscriber bills are current, ESNs get transmitted to the network each time the device is used.</p> <p>The Telecommunications Industry Association (TIA) administered ESNs and assigned a code to each device manufacturer to prepend to the serial number. An 11-digit ESN comprises the manufacturer's code (the first three digits) and the serial number (the remaining eight digits). As manufacturers produce certified Verizon devices, they upload identifiers, including ESNs, to the Verizon Device Management Database (DMD), where they await activation by an approved account. In some circumstances, these devices may never be activated on the Verizon network.</p>
Mobile Equipment Identifier (MEID)	<p>After the ESN supply was exhausted, the TIA devised the MEID system for CDMA device manufacturers to use to identify 3G devices. Like the ESN, MEIDs get transmitted to the network each time the device is used.</p> <p>An MEID's 14 hexadecimal characters represent the following three pieces of data: regional code, manufacturer code, and serial number. As manufacturers produce certified Verizon devices, they upload identifiers, including MEIDs, to the DMD where they await activation by an approved account. In some circumstances, these devices may never be activated on the Verizon network.</p>
Mobile Directory Number (MDN)	<p>MDN is the unique 10-digit phone number Verizon assigns to a CDMA device at activation. MDNs comprise the area code (3 digits), exchange (3 digits) and number (4 digits).</p>
Mobile Identification Number (MIN)	<p>Verizon uses a 10-digit MIN to internally track and route traffic to and from a device. Like the ESN and MEID, the MIN is transmitted to the network each time the device is used. Traditionally only 3G devices are assigned MINs; however, since 4G devices contain components that allow 3G traffic, they also have MINs.</p>

4G M2M device identifiers defined

Identifier	Description
International Mobile Equipment Identity (IMEI)	<p>All 4G M2M devices include radio modules that allow wireless communication. Manufacturers assign these radio modules unique IMEIs. IMEIs are the primary 4G device identifiers.</p> <p>Since most 4G devices also have a 3G modem to allow communication when a 4G connection isn't available, these devices also have MEID identifiers. As manufacturers produce certified Verizon devices, they upload IMEIs to the Verizon DMD where they await activation. In some circumstances, these devices may never be activated on the Verizon network.</p>
Subscriber Identity Module (SIM)	<p>Every 4G M2M device requires a SIM card, which enables it to communicate on a wireless network. SIM cards are specific to a carrier's network. SIM cards that enable communication on the Verizon network differ from those built to communicate on other carriers' networks. A SIM card identifies a device to the network by carrying two identities: ICCID and IMSI.</p>
Integrated Circuit Card Identifier (ICCID)	<p>An ICCID is the unique serial number assigned to and imprinted on a SIM card by the manufacturer. An ICCID is stored in a SIM card's memory and never changes over the life of the card. If you remove a card from a device and insert it into another device, the ICCID and IMSI remain with the SIM, but the IMEI associated with the SIM changes.</p>
International Mobile Subscriber Identifier (IMSI)	<p>The IMSI is stored on a SIM card and identifies and authenticates the user of the network, which Verizon also calls the subscriber. The IMSI is only revealed to and known by the carrier.</p> <p>The IMSI comprises the following codes:</p> <ul style="list-style-type: none">• MCC = Mobile Country Code (311)• MNC = Mobile Network Code (480)• MSIN = Mobile Subscription Identification Number – unique number for the subscriber on the Verizon network
Mobile Station International Subscriber Directory Number (MSISDN)	<p>MSISDN is the unique 11-digit phone number Verizon associates with a 4G device at activation. It is functionally equivalent to a 3G device's MDN.</p>