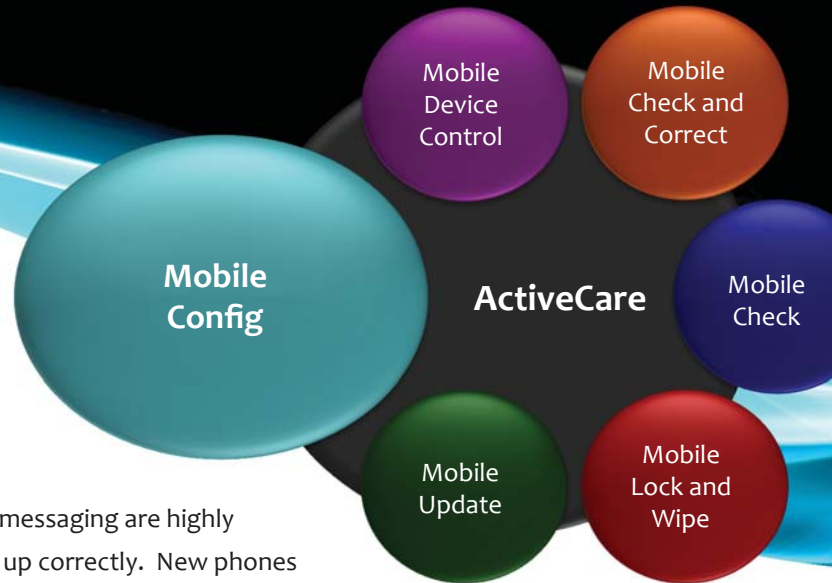


# InnoPath ActiveCare Mobile Config



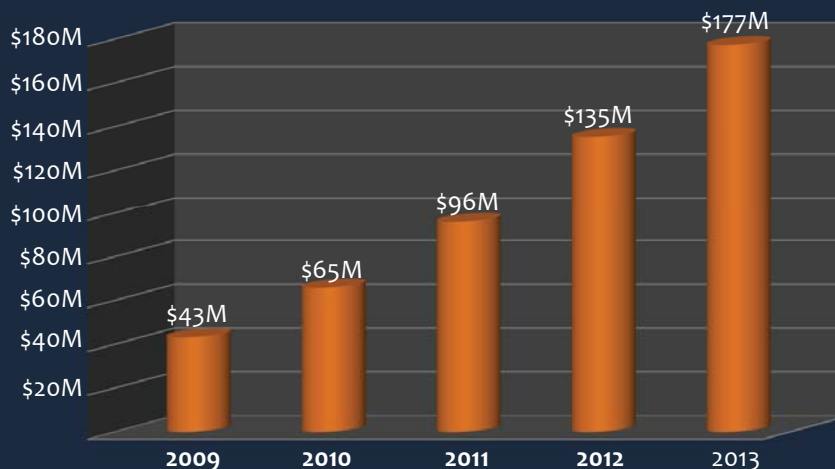
Services such as email, internet browsing, and picture messaging are highly marketed by wireless operators, but all need to be set up correctly. New phones entering the network should be automatically identified and configured for an operator's specific service offerings, avoiding the need for subscribers to manually set them up. In the absence of configuration, support organizations are burdened with calls dealing with services that don't work properly, or even worse, the subscriber drops the service or moves to another operator.

*Up to 10% of devices in an operator's network are not properly configured, with a negative impact on subscriber satisfaction and data revenue.*

Mobile Config permits the operator to automatically configure new phones as they join the network without having to ask the subscriber to manually check and input parameters. It also provides a tool for the customer care to configure connectivity settings including APNs, MMS, email, PIM Sync and browser settings if the subscriber calls in with a problem.

In both cases, subscriber satisfaction improves, and since services are properly configured, support calls are reduced while data revenue is increased. In fact, 10% of all OMA-CP provisioned devices entering a network are mis-configured due to the lack of verification or from subscribers not accepting the pushed configuration settings. In a typical Tier 1 operator, this equates to tens of millions of dollars annually in lost revenue that may be regained through more effective device configuration. InnoPath's Mobile Config provides such a solution.

**The Cost of Misconfigured Devices at a typical Tier 1**



# Mobile Config

## *continued*

### **Mobile Config supports both OMA-CP and OMA-DM**

In order to provide the widest possible coverage, Mobile Config supports both OMA-CP and the newer OMA-DM protocol. OMA-CP, while enjoying relatively widespread deployment in existing devices in GSM networks, is a older, “connectionless” protocol, sometimes called “fire and forget”. OMA-DM, found on an increasing share of new devices shipping today, is a bidirectional protocol, not only sending commands to the device but also replying back with confirmation once commands have been executed. A further advantage of DM is that, unlike CP, it supports the creation of new OTA manageable applications, allowing device management platforms to evolve and grow along with the applications and services offered by the operator. With ever greater DM penetration, the majority of devices in the field will be DM manageable. That said, an ideal solution would provide for the management not only of devices shipping now and in the days to come, but also devices in the hands of subscribers today. Mobile Config provides the operator with the best of both worlds.

### **Use Cases for Mobile Config**

Mobile Config can be triggered in different ways. These triggers are sent to the InnoPath ActiveCare server through an operator’s existing back-office systems. They are then processed in a workflow, which then invokes an over-the-air configuration session.

- **New Device joins the network** – Mobile Config automatically configures new phones as they join the network. When a new device joins the network, a specific event is generated by the ADD (Automatic Device Detection) system. Other events such as Service Access Attempt failures, or those triggered by SIM Toolkit applications or SS7 probing could also invoke Mobile Config. In cases where ADD integration is not feasible, it is also possible to integrate the operator’s point of sale systems to the ActiveCare server to initiate the Mobile Config process. The InnoPath server then identifies the phone, and pushes configuration settings via CP or DM. The ability of the server to properly configure new phones entering the network leverages InnoPath’s Device Capabilities Management Program (DCMP), a program that provides the server with a rich database of CP and DM device data.
- **During a call to Customer Care** – The customer care agent can initiate Mobile Config during a call. Here, Mobile Config is an essential part of Mobile Check and Correct, described elsewhere. Config can be triggered through a subscriber self-care portal as well.

*Mobile Config helps operators regain lost revenue, while at the same time providing error-free over-the-air configuration of phones. Supporting both CP and DM, it drives use of high-ARPU services and increases customer satisfaction.*