nPHASE|ONE

A Single Interface to the M2M World

nPhase ONE Developer Program

Businesses today are seeking to manage remote assets by deploying wireless machine-to-machine (M2M) applications that utilize powerful network infrastructures, such as those offered by Verizon Wireless and Vodafone. These M2M applications represent a potential for significant operational cost savings, new sources of after-sale service revenues, and entirely new business models.

nPhase ONE is the only M2M developer program that enables advanced M2M solutions engineered for deployment on Verizon Wireless and Vodafone networks. nPhase ONE provides an application development platform, a developer portal with online support and community forum, specialized toolkits, developer test environments, training, and end-to-end implementation support for device OEMs, application service providers, and enterprise customers.

Device OEMs

With nPhase ONE, M2M device OEMs can embed specialized capabilities into their products to extend new service capabilities, differentiate their offering, and drive growth in their M2M business. nPhase device-side application software can be customized and factory installed on approved devices to enable advanced connectivity management, device and network diagnostics, and application development capabilities.

Application Developers

Application Developers gain access to advanced M2M capabilities engineered for deployment on Verizon and Vodafone networks that can be easily integrated into their application platforms. Delivered in the form of Unified Web Services and device-side application programming interfaces (APIs), nPhase ONE provides access to the world's leading wireless networks, reduces application development costs, and accelerates time to market.

nPhase ONE supports Device OEMs, Application Developers, and Enterprise Customers with a single unified solution for building advanced Machine-to-Machine (M2M) applications.

Enterprise Customers

Enterprise Customers that need to manage their M2M business from back office systems or third party applications, and who desire to connect their devices to Verizon Wireless and Vodafone networks, utilize nPhase ONE to achieve straightforward integrations and reduced time to market.

Private Network Security

Network connectivity between the customer's data center and nPhase's data center is secured by either a VPN with a username and password, or by SSL with a username, password, and a white list of the customer's IP addresses.

Additional security is provided by user authentication and authorization of the customer's application as a user. nPhase provides the customer with a UWS username and password. The customer's application uses these credentials to programmatically log in to the nPhase servers. nPhase uses a secure token method to track the user's sessions.

High Availability

The nPhase advanced M2M cloud platform is a world class, dual-redundant M2M platform as a service (PaaS) that leverages Terremark's industry-leading IT infrastructure services to provide "five nines" reliability. nPhase's M2M services provide standard performance levels 99.999 percent of the time – 24 hours per day, 365 days per year.

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M2M DEVELOPER PROGRAM

Simplified and Well-Defined Development Process

The nPhase ONE application development platform is supported by a straightforward and well-defined development process that enables fast time to market with predictable results. The nPhase ONE website provides access to a Developer Kit and Customer Integration Test environment for M2M application developers and integrators. The Developer Kit contains API documentation, web services description language (WSDL) code, and developer guides. The customer integration test environment provides customers with a live test environment to use for building and testing their applications. The WSDL files contained in the .zip file package enable customers to begin early prototyping and implementation, and to become familiar with the web services framework.

Why nPhase ONE?

nPhase ONE is the only M2M developer program that enables Device OEMs, Application Service Providers, and Enterprise Customers with advanced M2M capabilities engineered for deployment on Verizon Wireless and Vodafone networks. Leading M2M capabilities can be leveraged to gain access to these networks, create differentiated services, accelerate time to market, and simplify deployments.

How Do I Get Started?

Visit www.nPhaseONE.com or call us at 855.M2M.LINK. We are inspired to learn about your needs and discover new possibilities for driving growth in M2M.

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Device Resident Software Clients

nPhase device resident clients come pre-installed on approved devices. Designed for over-the-air configuration, the nPhase clients enable developers to create the device-side applications that are part of a complete end-to-end M2M system solution, without writing any device-side code. Device-side capabilities include:

- The ability to extract and store the vast amount of diagnostics data available through a diagnostic interface on cellular modem chipsets for troubleshooting and analytics.

- Monitoring and reporting of sensor data. Monitoring applications are defined by configuration instead of code, reducing development expense and improving time to market. Client software connects to physical IO and serial protocols such as Modbus.

- Device control and management capabilities such as controlling device outputs, initiating a device restart or upgrade, waking up devices, updating the PRL list, and getting general device status.

- Automatic loading of correct client software and configurations upon activation.

nPhase Offerings

nPhase capabilities are grouped into three main offerings: Wireless Network Services, Application Services, and Device Performance Services.

Wireless Network Services

At the heart of every wireless M2M application are the wireless devices that send asset data – such as sensor readings, meter readings, or other remotely collected information – to the back-end application servers. To maximize operational efficiency and resources, M2M applications can automate the provisioning, monitoring, and control of wireless M2M devices by leveraging nPhase Wireless Network Services.

Application Services

Application Services offer secure, reliable, and scalable services and a powerful set of tools that help application developers to monitor and manage modems and sensors on remote assets. Whether you are developing a new application or adapting an existing application to incorporate wireless connectivity, Application Services provide advanced capabilities such as reliable store-and-forward messaging to and from the remote device; automatic over-the-air discovery, distribution, and configuration management of on-device software; and configurable sensor data collection interfaces. Enterprise applications access all Application Services using simple web service APIs over a secure connection to a 5-nines data center.

Device Performance Services

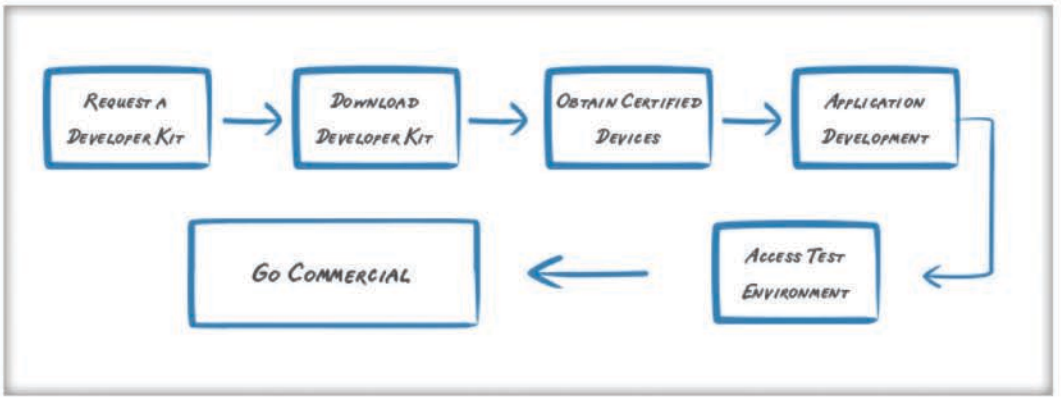
Device Performance Services monitor the device radio module for diagnostic events to identify causes of data session interruptions such as poor RF conditions, roaming failure, an application's policy decision not to connect, antenna hardware failure, or a modem management event. APIs on the device enable third party on-device applications to obtain radio diagnostic summary, signal strength bars, and roaming and connection status, enabling such applications to make intelligent connection decisions and to participate in the device connectivity diagnostics.

nPhase ONE Application Development Platform

nPhase Advanced M2M Cloud Platform

nPhase offers a complete wireless M2M service delivery platform that includes private network, multi-network device connectivity management, hosted static and dynamic IP addressing, hosted enterprise AAA, a self-service device management portal, advanced middleware, and more.

nPhase opens its robust service delivery platform to the M2M application developer community through the nPhase ONE development platform, which includes Unified Web Services for application development, enterprise system integration, and remote asset configuration, as well as device resident client software with APIs for modem control and RF diagnostic information capture.



Our straightforward and well-defined development process enables fast time to market with predictable results.

Unified Web Services

Unified Web Services are standards-compliant SOAP XML web services that offer integrators a single, portable, and easy-to-use interface to the Verizon Wireless and Vodafone systems and networks.

Carrier services shield developers from the underlying complexity of wireless network infrastructures. For example, to change the rate plan for a deployed device, an M2M application simply makes a single Web Service request, ChangeDeviceRatePlan, and provides two parameters: a device ID and a desired price plan. nPhase takes care of all the details, which include multiple interactions with several wireless carrier systems.

Other Unified Web Services provide device controls, session management, device software configuration management, and sensor configuration.

Write Once, Use Often

nPhase Unified Web Services are standards-compliant and portable across computing platforms, Verizon Wireless distribution networks (retail and wholesale), and wireless carriers (Verizon Wireless and Vodafone). For example, an application developed to run on the Verizon Wireless network can easily be adapted to also run on the Vodafone network with minimal developer effort.

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