Empowered by Innovation NEC

Fixed Mobile Convergence

uMobility

Integrating enterprise communications with your smartphone

NEC's uMobility solution for Fixed Mobile Convergence provides users with a powerful application, making the smartphone a true extension of the enterprise telephony system. Available for a range of mobile devices and combining both mobile and WiFi networks, it ensures to stay connected at all times. And uMobility is available for all NEC communication servers.

Mobile phones are a mainstay in today's businesses and the usage is still growing. Employees have traditionally relied on mobile devices to stay connected, making it necessary to also distribute a separate phone number to ensure they can always be reached. This also means management of multiple voice mailboxes, which can delay message handling.

Another issue arising while using mobile devices in the office, is a weak in-building signal, resulting in disturbed communication. Missing or dropping important calls can mean the difference between winning or losing business.

With NEC's fixed mobile convergence uMobility solution, businesses are now able to provide employees with single number reach, unified voice messaging and enhanced in-building coverage through a business's WiFi network. By enabling employees to be reached anytime, anywhere - any business can become more efficient, responsive, collaborative and productive.

At a Glance

- Single number reach and voicemail
- Seamless roaming on and off campus
- Enterprise dialling and features via smartphones
- Independence from specific mobile network technology
- Improved efficiency and productivity
- increased customer satisfaction

Smart Mobility solutions for **Enterprise Communications**

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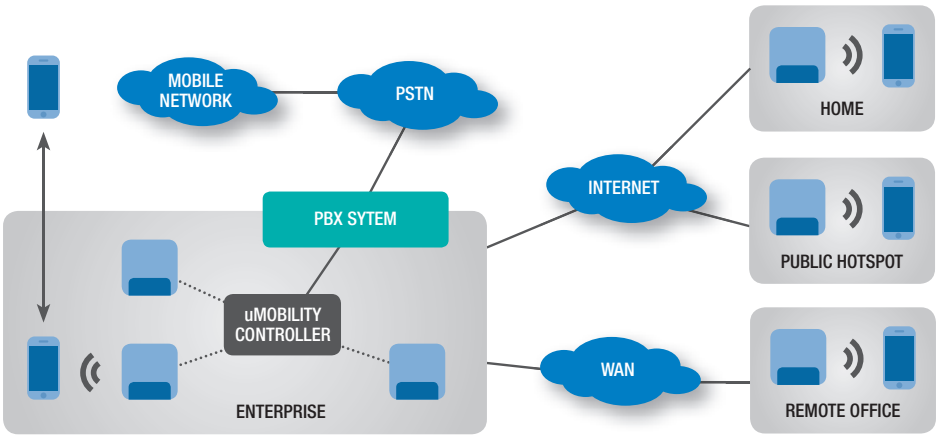
Client examples (Android and iOS) and solution diagram:



uMobility offers powerful features

- **Single-number reachability** and single-number identity via the enterprise number.
- **Guaranteed call delivery** of enterprise calls to/from the smartphone without a permanent data connection.
- **A single mobile handset** that works as effectively in the office as when traveling or working from home.
- **Various cost saving call scenarios** including calling via the WiFi network and using least cost routing through the PBX system.
- **The comfort of the intuitive way** of using the handset platform such as on Android and iPhone.
- **Ability to use PBX functionality** such as hold, transfer and specific routing to other devices.
- **Integrates smartphone contacts** and can be combined with browser access to the company's Unified Communications platform to include corporate directory, presence, click to dial and more.
- **Provides full FMC solution** with uMobility clients and uMobility Controller for PBX integration and provisioning.
- **Direct Connect** - The uMobility clients can be a 'Direct Connect' client on the IP PBX when no FMC is required. This is supported by a uMobility Provisioning Manager.

NEC uMobility features a uMobility Controller (uMC) that securely extends enterprise SIP extensions to smartphones through the mobile or WiFi network. A variety of deployment scenarios are available:

- **Single-mode** - only using the mobile network.
- **Dual mode** - using both mobile- and WiFi-networks.
- **Seamless handover** - to automatically switch between mobile and WiFi when the signal strength and quality of the network in use becomes insufficient. The transfer is seamless, so the user can continue conversation.
- **Hotspot mode** - the enterprise-grade secure WiFi network can be complemented with access via hotspots or the home WiFi system, provided that the appropriate security means are taken such as by implementing an SBC solution.
- **Various 3G/4G mobile network options** - depending on the mobile provider contract, the network can be used without any data, with data signaling over 3G/4G or even with voice over 3G/4G. Without 3G/4G, the uMobility client will use DTMF for signaling, with 3G/4G signaling the client will also offer mid-call features like hold and transfer and Calling Line identification.
- **On-premises or in the cloud** - uMobility can be installed on premises but also in a (private) cloud supporting a number of PBX systems with one uMC.
- **Multi-user** - one uMC can support a number of tenants and PBX systems simultaneously in a multi-user configuration.
- **Rich provisioning** - uMobility will send users email or sms to easily install the application and all settings required, allowing for deployment to a large group of users.

Single number reach and voicemail

uMobility enables employees to be reached via a single number, by transparently bridging calls to their business phone number to their mobile. Only a single phone number is used by customers, vendors and business associates whether the employee is in the office or not, alleviating the frustration of not knowing which phone number to call or where to leave a message.

If the desired employee is not available, the call is directed to the business voicemail account. No longer will employees have to miss that important phone call from a customer, or check multiple voice mailboxes; uMobility speeds up connectivity, improves responsiveness and reduces caller wait time.

Seamless roaming on and off campus

uMobility lets employees effortlessly roam on and off campus, from a business 's WiFi to mobile networks and back again via a Smartphone. It lets employees answer their business phone directly from their mobile phone plus it greatly enhances in-building coverage to ensure reliable mobile phone usage anywhere in their office.

This solution automatically replaces the weak and unreliable mobile signal experienced from inside a building with the much stronger and more stable WiFi signal within an office - ensuring solid voice quality. uMobility 's patent-pending technology senses when an employee enters or leaves their office building; this enables their business phone calls to be automatically directed to their mobile phone. Powerful, additional technology ensures that wherever the employee is, their mobile phone voice quality will rival that of their business phone.

Another added benefit of uMobility is that it reduces mobile phone minute charges each time a mobile phone is used at the office because the mobile network is bypassed - resulting in potential cost savings. uMobility offers businesses true mobility with the high-quality voice communications they have come to expect from NEC.

Enterprise dialling via smartphones

With uMobility, Smartphone users are able to do station-to-station and external dialing as well as utilize the trunking services of the enterprise switch. This allows mobile users to place calls by either entering a 4 or 5 digit extension or a fully-dialled number. By placing the call through the enterprise switch, the caller ID that is presented is the user's enterprise number instead of the mobile number which reinforces single number reach. uMobility also allows businesses to track mobile phone usage in the office since all mobile phone calls are captured by the business's phone system call logs.

Independence from Specific Mobile Carrier Technology
Because uMobility does not depend on specific mobile technology, it provides businesses the flexibility to select or keep their mobile carrier of choice. So, businesses can negotiate the most economical plan that will suit their needs.

Improved efficiency and productivity

uMobility enables employees to be reached anytime, anywhere which results in better efficiency and higher productivity. Businesses can streamline communications and information delivery by handling calls more promptly from any location without having callers directed to voicemail. Those important calls will never be missed again.

Increased customer satisfaction

Providing customers a single number that can be used to reach their contact on the first try positively impacts customer service dramatically. No longer will customers have to be routed through automated attendants and directed to different voice mailboxes. They can be confident that they will reach the person they need when they need them.

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Features

Call features	· Single number reach (SNR) · Calling Line Identity (on WiFi, and on GSM when SIP trunk) · Outgoing Private Call (not through uMC)	· Enterprise dialing · Do Not Disturb · Call Logging · Dial/redial number
Midcall features	· Hold / Unhold · Attended Transfer	· Mute and speaker call · Blind transfer
Unified Communications*	· Integration of Smartphone Contacts · Interoperability with Business Connect mobile client for corporate Directory, rich presence and more	· Access to Voicemail · Central voicemail Indication
Mobility and device handoff	· Single mode (GSM) and Dual mode (GSM/WiFi) · Seamless handover and automatic roaming (GSM/WiFi) · Move call to any other extension or public telephone, with retrieve back to smartphone (device mobility)	
User Interface	· Native call handling screen on Android, BB and Nokia with background uMbility Client. Foreground client on iPhone and WM	
Device compatibility (Compatibility at least for specified levels. Updates at regular intervals for relevant device and OS combinations)	· iPhone 4/5/6 with iOS 7/8 · Android 2.3 and 4.x · Blackberry only on BBOS 5.x and 7.x	
Data options	· DTMF-mode: no data (2.5G, 3G, Wifi) connection available. Client is reachable and makes calls with DTMF support · Mobile-data-mode: data connection through 2.5 or 3G, signaling via data channel, voice through GSM · WiFi-mode: voice and data supported by Wifi · Voice options: GSM-voice, Voice-over-3G, Voice-over-Wifi	
Provisioning	· OTA (Over The Air) client SW delivery and provisioning of client data import of CSV files	
uMobility Controller (uMC) and uMobility Provisioning Manager	· Number of clients on a quad-core, 2.6GHz system with 30% CPU utilization: 1780. Max number is 6500 users · Processor: Xeon Class @ 2.6GHz, Memory: 4GB RAM, Disk space: 80GB, NIC: One GigE. For larger configurations bladeserver Cluster, memory: 4GB RAM, disk space: 100GB	
High availability	· Native redundancy support including a primary active uMC and a standby uMC	
Multi-user/PBX	· One uMC can support a number of tenants and PBX systems simultaneously in a multi-user configuration. The uMC can be located on premises or in a (private) cloud	
Virtualisation	· uMC can run on a virtual environment such as VMware provided that sufficient resources are allocated with respect to Memory (RAM), LAN CARD (NIC) Network Interface, processing power, disk space(Storage) and high priority for the uMC operating system	
IP PBX Compatibility	· iS3000 and SIP@Net, SV8100, SV8300, SV8500, SV9100, SV9300, SV9500, 3C	
WiFi Infrastructure	· Must be a managed service supporting both Over the Air Qos and wired QoS	

* Maximum number of simultaneous calls is limited by the Voice over IP Resources (IP Pad Channels) available
** Maximum number based on peer to peer, maximum independent of chassis configuration

For further information please contact NEC EMEA or:

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