Winwap DevSyncMan

Wireless Cloud System

Remote Manage Devices

- **Track** when device is **first used** (e.g. upon first use it registers server side)
- **Track location** of device, and gather generic knowledge of where devices are used (also useful for stationary devices, such as Smart TV and related consumer electronics)
- Identify app/system versions, and **Push software updates** to Device
- **Identify problems** on Device remotely (e.g. Battery dead, temperature too hot, etc.)
- **Provides return** communication **channel** to device (e.g. push a message to be shown to user)
- Provides possibility for targeted advertising to device users

Add consumer value

- Server website console includes device user and OEM interfaces
- **Locate Device** on Map from server website console
- **Remote Lock** Device from server website console
- **Remote Wipe** Device from server website console
- **Synchronize/**Backup ANY data (Pictures, Calendars, Contacts, SMS, Settings, or ANY other data depending on storage resources and preference)
- **Restore** Backed up data after factory reset or to new device

No SIM card required for above features! (e.g. a stolen device will remote wipe also if it is connected over WiFi the first time after removing the SIM card)

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DevSyncMan

The DevSyncMan product is a combination of a **Server Component** running **in the Cloud**, a **Client Component** that is installed on each device, and related services provided by Winwap to maintain and configure the total system.

The solution provides a simple way to offer users of devices advanced synchronization (backup) of their devices over the air, as well as provides a system for managing, maintaining and tracking the devices remotely.

Cloud Client Component Platforms

- Android: from 2.2 to 4.0
- Windows Phone OS: 7.1 (Mango)
- Windows Mobile: 5.0 to 6.5, all touch and non-touch versions
- Symbian: S80, S60, from S60 3rd Edition to all Symbian^3 versions, UIQ 3
- SonyEricsson: JavaPlatform (JP)
- Nokia Series 40: from 2nd Edition onwards
- RIM Blackberry OS: from 5 to 7
- iOS: from 4 to 5 (Q1 2012)
- Samsung Bada: 2.0   (~Q2 2012)
- Meego: 1.2 Harmattan (Nokia N9, and Nokia N950)

Cloud Server Component HW requirements

The values in the "100K Users" column in the table below are good for up to 100.000 devices, and the values in the "1M Users" column are good for 1.000.000 devices (depending on activated featureset, and simultaneous WebUI logins).

Component	100K Users	1M Users
Physical server hardware as the host for VMware vSphere virtualization	1	1
VMware vSphere 5 Hypervisor (a.k.a. ESXi)	version 5	version 5
Amount of processors and cores on the physical server hardware	1 x 4-core	2 x 6-core
Amount of connected network adapters on the physical server hardware	2	4
Amount of memory on the physical server hardware	20 GB	52 GB
Memory amount for the master database server	8 GB	16 GB
Memory amount for each frontend application server	8 GB	8 GB
Number of frontend application servers	1	4
Number of service monitoring alliances	1	1
Disk space for service: virtual machine operating systems	40 GB	100 GB
Disk space for service: service applications	20 GB	100 GB
Disk space for service: core databases	10 GB	30 GB
Total amount of disk usable disk space required on the server for core service	140 GB	300 GB
Disk space for service: subscriber device data backup (contacts, calendar, SMS, notes, todo)	8 MB/subs	10 MB/subs
Disk space for backup: 25 - 40 % of the size of subscriber device data backup	2 MB/subs	4 MB/subs

Please double the hardware listed above for redundant, highly-available solution.

Features

High Level Features (Android)

General Features	Android
Support for multiple devices and platforms for one end-user with cross device data sync	X
Support for localized device clients	X
Support for Web Service Device Management™ for diagnostics, and in-depth inventory	X

Device data synchronization (OMA DS)	Android
Contacts	X
Calendar	X
Short messages archive backup (sent and received)	X

Configuration management	Android
OMA DM settings	X
OMA DS (SyncML) settings for data synchronization	X
Email settings (POP and IMAP) management	X *)
Exchange Active Sync (EAS) settings	X *)

*) Depends on OEM specific EAS implementation

Diagnostics and inventory	Android
Device manufacturer	X
IMEI/MEID (mobile device identifier)	X
IMSI (mobile account identifier)	X
Device model	X
Device hardware version	X
Device firmware version	X
Device operating system version	X
Device UI language	X
Battery charging status	X
Battery voltage level	X
Mobile network name	X
Mobile network MCC and MNC IDs	X
Mobile network roaming status	X
Mobile network type (gsm, wcdma, lte, etc.)	X
Mobile network signal strength	X
TCP/IP network settings (IP number, DNS, and all related core data)	X
Device storage information (devices, device size, and device free space)	X
Device location (various methods/variable accuracy), user controlled, commercial use possible	X

Features

Security management	Android
Device lock code management	X
Lock code settings management	X
Secure PUK1 and PUK2 store	X
Secure PIN1 and PIN2 store	X
Advanced and secure write-only audit log	X

Device actions	Android
Lock device (with extremely strong complex password on Symbian) and unlock device	X
Wipe device to factory settings	X
Install/update native applications *Note: Currently user confirmation is required.*	X
Send free form SMS to device	X

Other Features

The Server Component can also be provided so that the OEM can offer the Sync server customized for each carrier customer, and let the carrier specific devices automatically configure themselves for the carriers specific servers. The Server website can be customized for each carrier. The Server Component is completely dynamic and can be divided onto several servers to support any amount of users/devices.

The entire system is very flexible so that the OEM can select which items to Manage or Synchronize. By only synchronizing a few items, or only managing the device without Sync, the Server Component's storage and system requirements can be lighter then for a complete Synchronization offering.

Winwap can also provide a turnkey solution including hosted Servers and customization for the OEM. Or the OEM can keep the servers locally and Winwap will provide configuration services for the server components over the internet.

Network APN configuration module

DevSyncMan can also configure the network APN for the device when a new SIM is detected or on the first time the device is started. This is done very similarly to the Google provided way of offering user a shortlist to choose from based on the network the device is connected to. Over 600 carrier network settings are known, and more will be added as needed.

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Mobile Internet Browsing and Multimedia Messaging

Windows® Embedded Partner

Winwap Technologies is specialized in software technology for networked devices. The products include MMS Messaging, Email, UPnP A/V (DLNA), Browser, Cloud System, USB Modem Drivers and services for integrating and customizing to meet customer requirements. Customers can be found on all continents and the software is embedded into various products on global markets.

Winwap Technologies is privately owned and was founded in 1995 by Mikael Krogius, who continues to run the company to-day. Since the first days of operation the company has been involved in telecommunications. In 1999 the world's first Mobile Internet WAP Browser for Windows was released and paved the way for the strong focus on wireless software technologies for embedded platforms of today.

At Winwap Technologies we are right at home with projects that have multi-year lifecycles and making sure our technology maintains value for customers during that time. It is further important to us to maintain our flexibility towards customers and ability to adapt to the ever changing mobile climate to continue to provide value to our customers in the long term.

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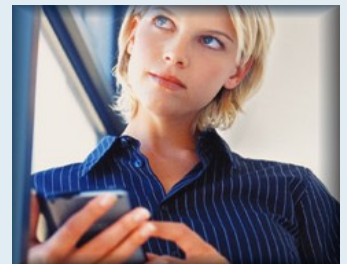Email: winwap@winwap.com

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All Winwap products are available for hardware or software manufacturers that want to include the products as part of their own solutions and products.

The products can be customized and built for specific platforms, including desktop computers, notebooks, kiosks, smart phones, tablets, industrial handhelds and more.

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