Mobile Connection Explorer for Mac OS X

Introduction and Features

Public version

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History

Version	Date	Description	Author
1	24.10.2008	first release	Sales
2	7.9.2009	Snow Leopard	Sales
3	1.4.2011	Lion support, 10.4 support drop	Sales
4	29.12.2011	New features	Development
5	15.5.2013	Mountain Lion and SMS	Sales

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1. Scope

This document contains description and features of Mobile Connection Explorer (MCE) for Apple Mac OS X.

2. Abbreviations

APN	Access Point Name
BT	Bluetooth
CDC-ACM	Communications Device Class Abstract Control Model
CDC-ECM	Communications Device Class Ethernet Networking Control Model
CDMA	Code Division Multiple Access
DUN	Dial-Up Networking
EC	Express Card
EDGE	Enhanced Data rates for GSM Evolution
EULA	End User License Agreement
EV-DO	Evolution Data Optimized
GPRS	General Packet Radio Service
GSM	Global System for Mobile communications
DC-HSPA	Dual Carrier High Speed Packet Access
HTTP	Hypertext Transfer Protocol
HTTPS	HTTP - Secured
KEXT	Kernel Extension
LAN	Local Area Network
OFDM	Orthogonal Frequency Division Multiplexing
PAP	Password authentication protocol
PCMCIA	Personal Computer Memory Card International Association
PIN	Personal Identification Number
PKG	Package
PPP	Point to Point Protocol
RAS	Remote Access Service
SMS	Short Message Service
TDCDMA	Time Division CDMA
UMTS	Universal Mobile Telecommunications System
USB	Universal Serial Bus
WAN	Wide Area Network
WiMax	Worldwide Interoperability for Microwave Access
WLAN	Wireless LAN

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3. Introduction

The first version of Mobile Connection Explorer was introduced in 2002. Since then, the software has steadily been enhanced and extended. Mobile Connection Explorer is already used by over one million of subscribers in various countries worldwide.

The Mac OS X version of the software was introduced in 2008 based on requests from our existing customers. This version benefits from the know-how accumulated since 2002.

4. Specification

Mobile Connection Explorer for Mac OS X is a complex solution, which automates all steps required for successful connection setup. It includes detection of a connected mobile device, its installation including kernel extensions (KEXT – driver) and connection profile creation. Mobile Connection Explorer also offers connection management – connection dialing, connection termination, data throughput and volume monitoring and many value added services.

Mobile Connection Explorer does not use any proprietary or nonstandard functions, which results in 100% compatibility with Mac OS X and other software. The currently supported radio access networks are GPRS (including EDGE), UMTS (up to DC-HSPA), LTE, TDCDMA, and CDMA (including EV-DO). The architecture is ready to support any other or upcoming radio access networks like WiMax.

Mobile Connection Explorer also supports SMS, PIN/PUK management, cellular network selection, statistics and custom connection profiles.

The application’s user interface is designed according the latest Mac OS X guidelines.

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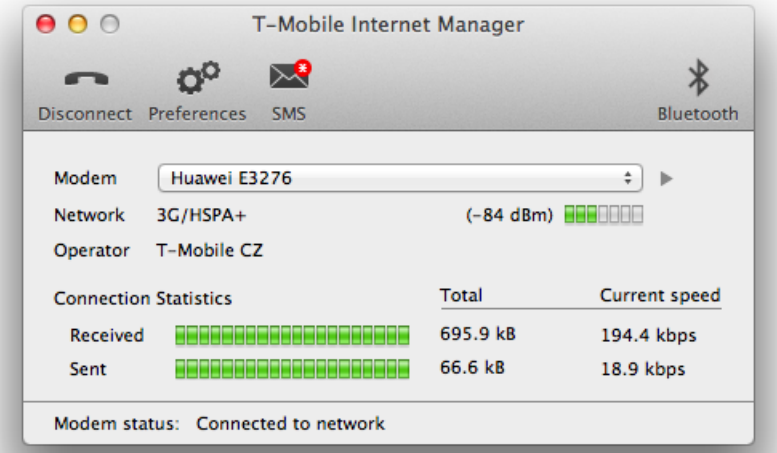
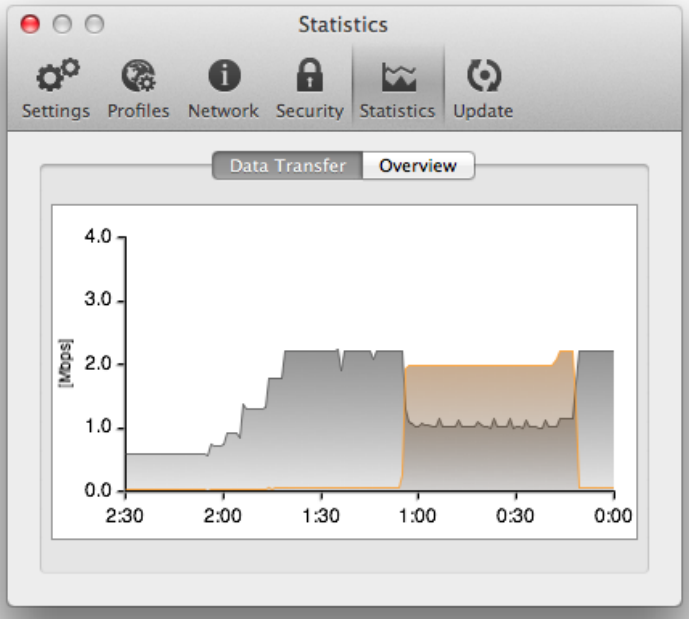
5. Screenshot gallery





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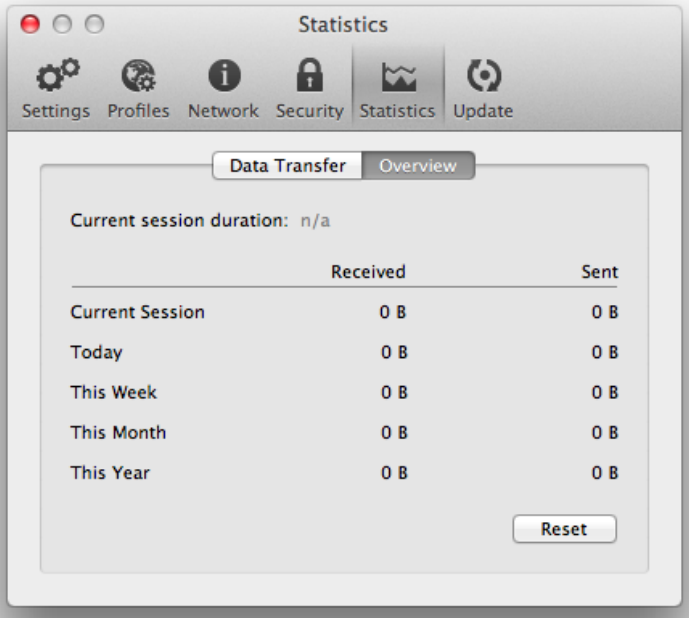

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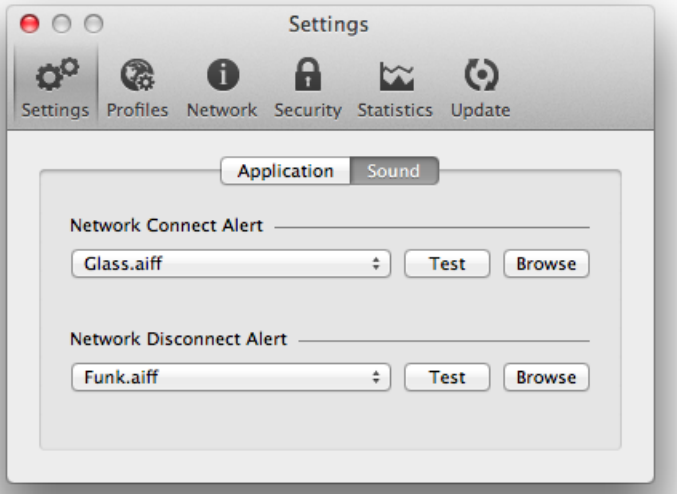

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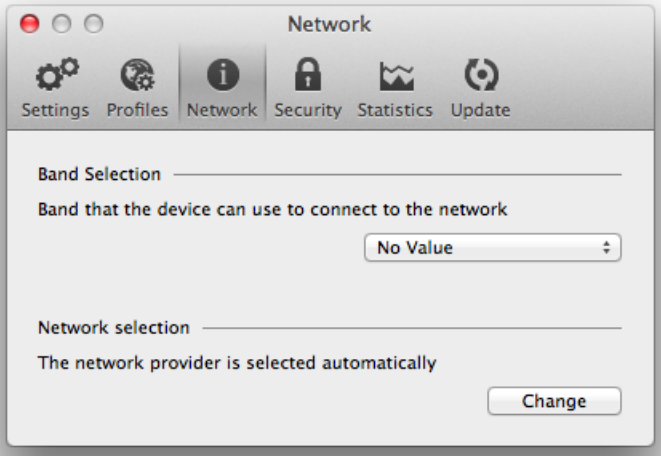

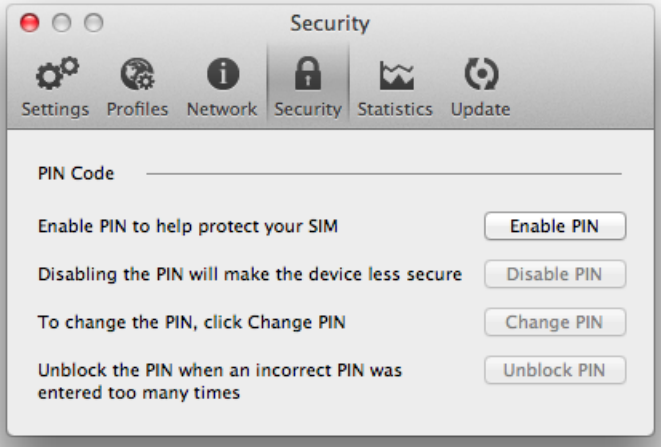

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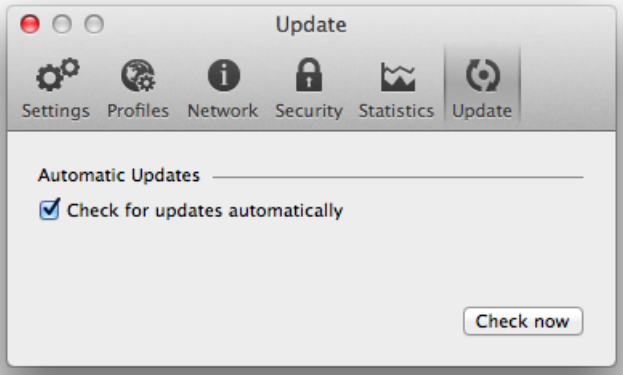

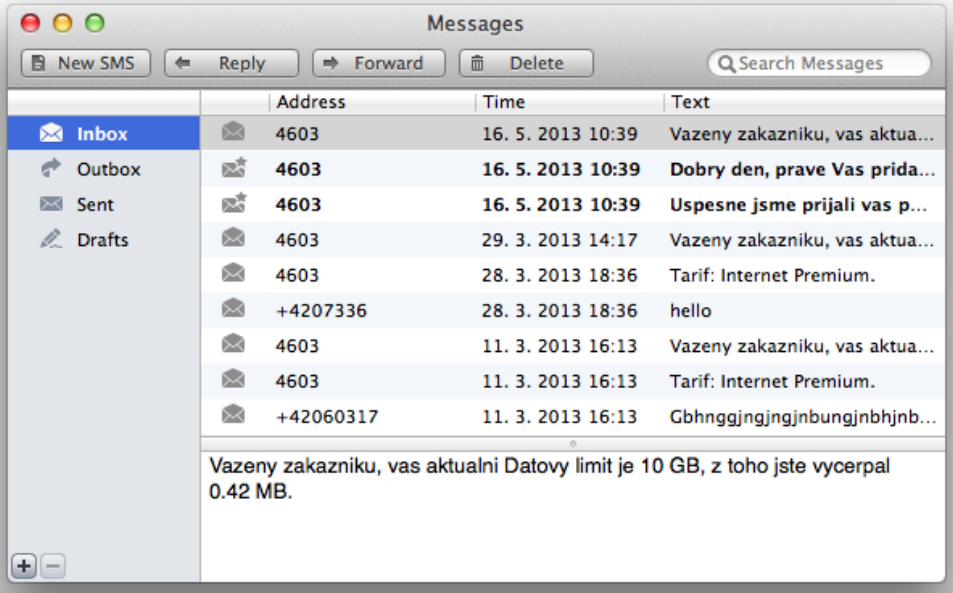

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6. Features

6.1 Supported operating systems

- Mac OS X 10.5
- Mac OS X 10.6
- Mac OS X 10.7
- Mac OS X 10.8

Please note that the software is also available for Microsoft Windows as a separate product.

6.2 Hardware device connections

- Bluetooth
- Express Card (both USB and PCI Express backplane supported)
- USB

Any additional/proprietary interface may be supported if documentation and API is available.

6.3 Network connection types

- Modem dial-up networking (e.g. CDC-ACM)
- Ethernet type connections (e.g. CDC-ECM)
- Proprietary Qualcomm (AnyData, C-Motech) diagnostic port connection

Multiple devices are supported simultaneously. Users can choose which device to work with.

6.4 Automatic device detection and driver handling

Devices connected to the system are automatically detected.

The detection and installation process was tested with hundreds of devices and is continually re-tested with devices coming to market.

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6.5 Customizable graphical skin (optional)

The application's user interface is highly customizable according to the customer's needs. We can change:

- size
- colors
- animations
- buttons
- icons
- user interface logic
- simple / advanced mode

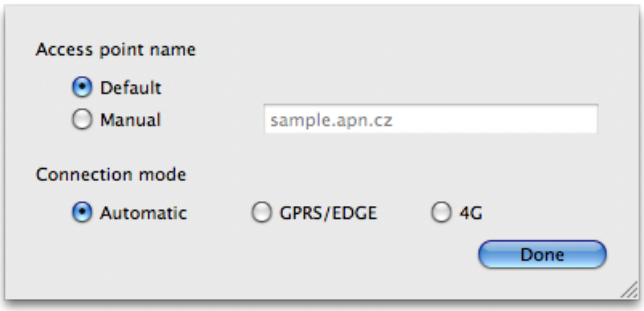
6.6 Setup package

By utilizing advanced compression methods and clean programming techniques, MCE for Mac OS X is only about 5MB in size. This simplifies distribution via downloads.

The installation package can bundle any 3rd party application. This allows offering a single setup package to users, providing multiple functionality (e.g. real-time compression, VPN).

6.7 Connection profiles

Simultaneous support for multiple technologies (e.g. CDMA 1x and DC-HSPA) is possible due to technology independent connection profile structure.



Custom APN profiles are available, in order to support corporate user setup.

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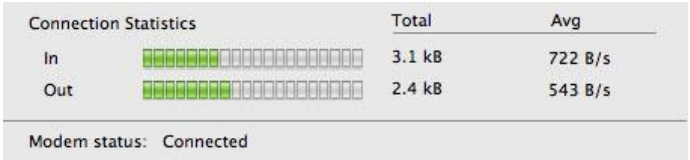
6.8 Connection monitoring

Highly scalable engine is available to create online connection reports.



- Table statistics
- Max / min / average values
- Signal strength monitor
- Network monitor (e.g. network type)

6.9 PIN management

Complete PIN management is built into the application, which is especially useful for devices without a keypad, like USB dongles.

6.10 Zero-CD devices support

Devices with an embedded virtual CD containing drivers are supported. Due to our long-term cooperation with major vendors (e.g. Huawei, ZTE, Option) we are ready to provide a fully integrated solution with embedded drivers.

6.11 SMS and network control (optional)

Network control

- Mode selection (e.g. LTE / 3G / 2G / auto)
- Network selection (e.g. in roaming)

SMS

- UCS2 / Unicode support
- Concatenated SMS support
- Visual feedback on the total number of SMS used and characters remaining
- Mac OS X address book integration

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6.12 Automated driver installation

Supported manufacturers:

- AnyData
- IP Wireless
- Huawei
- ZTE
- Any other pkg, dmg or kext based driver installation package on request

Please note that separate permission from some of the above mentioned manufacturers might be required to allow binary driver redistribution.

6.13 Automated remote updates

Both the application and device firmware (optional) may be remotely updated from a central management server.

7. References

Carriers using Mobile Connection Explorer who agreed to having their names published:

- T-Mobile Czech Republic (http://www.t-mobile.cz/)
- Kyivstar Ukraine
- MTS Ukraine

Customers using other software based on Mobile Connection Explorer core:

- Beeline Russia
- Telefónica O2
- Siemens FSP
- T-Mobile Croatia