



M4E FAQ

Question: What does the **M4E** purpose built SMS / MMS messaging platform do?

Answer: **M4E** platforms allow teachers and subject matter experts to use existing student / employee cellular handsets as homework assignment test taking tools. Account holders create and send multiple choice questions to cellular handsets as class test events. A cellular class can have up to 300 student cell numbers that are declared in each account on each **M4E** platform. Students reply to arriving SMS questions one at a time when they can. All answer results are recorded by **M4E** servers. Reports are created including percentile grading of each student. Each **M4E** platform can support up to 200 teacher accounts and 3000 handsets on a capable VMware® hardware host.

Technical Overview:

M4E virtual machine (VM) runs on Ubuntu 8.10 Linux kernel 2.6.27-7-server. VMware Tools® are installed. Initial cellular network connectivity can be accomplished using a GSM modem with resident SIM card installed. The SIM card should have the unlimited text messaging subscription add-on. The GSM modem is connected to the physical **M4E** host server using a Wavecom® 9-15 pin data cable ordered with the Wavecom Fastrack 20® GSM modem kit. **M4E** VM runs as a guest operating system (GOS) on VMware® software platforms. Bridged or NAT virtual networking is used to communicate between physical hosts and **M4E** VM. A slow speed GSM modem can serve as proof of concept or pilot network connection. A higher speed IP SMS connection to a Tier One messaging aggregator is also supported and discussed in the next **Question**.

NOTE: Please check with your mobile operator retail store before using a SIM card and GSM modem for this application.

Question: Are higher speed IP SMS connections to a Tier One connection service provider supported?

Answer: Yes, these can use the SMPP protocol. Throughput circuit speeds of 20 and 30 SMS per minute are supported. In addition, higher speed circuit throughput rates of 1, 10, 20, 30, 50, 100, 300 and 500 SMS per second using up to 64 concurrent service provider connections are supported. If upgrading to the IP SMS broadband service provider connection called SMPP, first uninstall the modem service provider connection. After you make IP connection account arrangements with your service provider (MBLOX® is one such Tier One connection provider), you will receive account information to create and maintain this circuit to their gateway. The SMPP connection protocol credentials should include:

- ✓ Provider host IP address and port number
- ✓ Account username
- ✓ Account password
- ✓ connection speed (max. number of SMS per second or minute allowed on the connection)

SMPP is a commonly used SMS messaging protocol that **M4E** platforms support. This requires a IP SMS connection account set up for you beforehand. If upgrading to the SMPP service provider connection, first uninstall the GSM modem service provider if present in Ozeki NG Gateway®

Question: Who is a connection account service provider can we contact about setting up a high speed SMPP connection for the **M4E** platform?

Answer: A California based company called MBLOX® is one example and there are other similar mobile operator connection agents in North America. Visit <http://www.mblox.com/> to learn more.

Question: How many text messages can the Wavecom Fastrack 20® GSM modem process per minute?

Answer: For capacity planning, the Fastrack 20® modem can process 8 SMS messages per minute. Messages waiting in the stack are processed 7x24 with a consistent mobile operator network connection.

Question: Our Wavecom Fastrack 20® GSM modem is not being detected - why?

Answer: The Wavecom Fastrack 20® GSM modem requires a DB9 - 15 pin data cable that is purpose built for this modem. Plug the data cable into a physical serial port on the host computer. Order the data cable that goes with this modem. A standard serial cable will not work. If there is no serial port available on the host, use the ATEN® UC232A USB to serial bridge adapter and accompanying drivers for the host operating system. Another item to check is possible corruption of the serial port in VMware® **M4E** VM settings. Delete the serial port, and then add a new serial port. Exit and re-start the VMware® software application. Select the correct serial COM port in VMware Server® settings and start **M4E** VM.

Question: Do any changes need to be made to Ozeki NG® routes or default program settings? One can uninstall the GSM modem service provider and install the SMPP service provider. The default db1 and Administrator user objects in Ozeki NG® are not changed from their factory settings for the **M4E** platform.

Answer: No. A single GSM modem connection is installed in the VM build. Edit the modem service provider configuration form by entering your SIM card phone number (number entry format is +1 area code then number: +12140009999) in the corresponding field and click the *Autodetect* command button. See the **M4E60**.PDF installation guide for details. Ozeki NG® provides a persistent connection to the SMS messaging gateway after the initial connection is established.

Question: What constitutes a software license for **M4E**?

Answer: A single software product download and installed **M4E** instance on a VMware® host computer. The download record is registered in our systems at point of sale. Licensed Customers can run three (3) virtual instances of each purchased **M4E** platform license on a VMware® host.

Question: Does VMware ESXi® hypervisor support direct serial port pass through from Linux guest appliances to the host?

Answer: Yes, in version 4.1 and later.

Question: What is the **M4E** VM pricing policy?

Answer: The prices displayed at www.messaging4education.com/order2.html are for information purposes only. RT Risk LLC reserves the right to change prices for products offered at this web site at any time, and does not provide price protection or refunds in the event of a price drop or promotional offering. The prices displayed on this site do not include any applicable sales taxes, including VAT, GST/HST, QST and/or provincial retail sales tax (in effect on the day of purchase).