Remote Support & Management
PC – Mac – Tablet – Smartphone – Embedded device

WiseMo Guest module
for example on your Windows PC

WiseMo Host module
on your Mac computer

Internet

Premises based

WiseMo develops software for remote control between computers and devices, for example between PCs, Servers, Mac computers, Smartphones, Tablets, and other handheld or un-attended devices. Using WiseMo software you have a powerful set of remote control and management features available to increase your efficiency – saving you time and money.

Guest & Host modules

The WiseMo Guest module runs on the computer or device from where you want to access and take remote control of other computers and devices.

The WiseMo Host module runs on computers and devices to prepare them for access by users with a Guest module.

Cloud & On-premises connectivity:

Connection between the Guest module and the Host module is either established via WiseMo's myCloud connectivity over the Internet or directly using TCP/IP communication on a LAN/WAN network managed by you.

For Cloud connectivity (WiseMo myCloud), your computer or device must be able to use the Internet, for example via fixed line, Wi-Fi or mobile operator network (3G, 4G, etc.). This will allow you to reach a computer or device wherever it may be and from wherever you are – as long as there is Internet connectivity on both the Guest and Host computer.

By using TCP/IP directly between Guest and Host computer on your own network (e.g. your Wi-Fi, LAN or WAN) you can avoid Internet traffic and possible data charges from your mobile operator.

The Mac Host program for computers running macOS

This guide provides information on how to install, configure, use and uninstall the Mac Host program – our Host module for use on computers with macOS 10.9 or later. The Host module prepares the computer for efficient remote control from other computers and devices running a WiseMo Guest module.

IMPORTANT: This guide assumes that you have a WiseMo Guest module available on a computer or device, ready to reach the Host on your Mac computer, either via myCloud connectivity or directly via TCP/IP. For information on how to setup a Guest module, please refer to the tutorials for such module. Available documents can be found here:
http://www.wisemo.com/support/documents/

1. Installation of the Mac Host program

The program is installed on your Mac computer, so you can remote control it from computers and devices running a WiseMo Guest module. The Mac Host program runs on macOS 10.9, 10.10, 10.11, 10.12, 10.13 and later.

1.1 Download the Host

You can get the Host installation file, a .pkg file, from various sources, for example via the Deploy Tab in a WiseMo myCloud account (trial or paid) or via a download link from the email supplied to you after a purchase or after requesting a free trial.

You can also download the program here: (v.17.0)   **DOWNLOAD**

For download via the Deploy tab in your myCloud account (login from a browser), select the Mac Host link, which brings you to the download page. Notice you can also deploy the download link, for example via email, to the target Mac computer. When downloading via myCloud, the Host will come pre-configured for both myCloud connectivity and TCP/IP connectivity.

1.2 Install the Host

Start the installation file, for example the file WsmHostMac.pkg, and the installation wizard will prompt you to accept the license terms. macOS will prompt you to accept installation of the program.

If the Host was deployed via a link from a myCloud domain, it is already myCloud licensed. If a customized configuration file was not applied to the Host link, the Host is by default configured to run automatically after installation. Access security is defined to use System Security Management for authentication, so built-in Administrators on the Mac Host are permitted as Guest user. The security role used is full access. For successful myCloud licensing and configuration, the computer must be Internet enabled during installation. The default configuration is easily changed via the Host user interface itself, or for example by running the configuration Wizard.

If the Host is not yet licensed when installed, for example if downloaded via the Download button above, it will start the Configuration Wizard.

1.3 The Configuration Wizard

The Configuration wizard takes you through commonly used configuration options. You can always start the wizard from the Host Manager, by pressing the Wizard button.

Below is a description of the wizard pages. Which pages you will be presented for depends on previous choices in the wizard and the overall state of the Host.

a.   Select license mode

If the Host is not yet licensed, the wizard will ask you to select type of license.

1. Licensed via a myCloud domain
If you have a myCloud domain, you can license the program by logging into this domain. Select myCloud subscription and press "Next".

Then enter your myCloud user account credentials (typically an email address and a password).

2. Licensed via a license key
Alternatively, you can license the program by entering a license key (a trial key or a purchased perpetual key).
Select this method, paste the key into the license key field and press "Next".
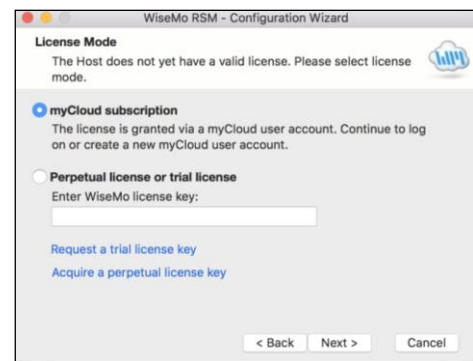
Use the license key method to allow the program to work in environments where there is no access to the internet or if remote control of the computer should not depend on internet availability. With the license key method, it is still possible to use myCloud for connectivity – when you have Internet access and a myCloud domain.

b. General options
You have the choice to change some default options for the Host. Those can also be changed later from within the program's user interface. See later in this document for a description of options.

c. Guest Access Authentication Method
Define the authentication method. The default method is a shared password for all users. It is recommended to use one of the more advanced methods. If multiple Guests should access the Host, you may want to select the System Security Management option or the User name and password option. See later in this document for a description of the options.

d. Guest Access Role
Security roles define what an authenticated Guest user is permitted to do. You can choose between 3 WiseMo defined roles. You can later change the definition of each security role or define completely new security roles. Notice that if a WiseMo defined security role has been modified, the Wizard text will provide you with a warning.

e. Defining Guest users
If the authentication method chosen requires the definition of Guest users, the Wizard will present you with the option to do so.

f. Configure for myCloud
If the license method is perpetual, the wizard will prompt you with the option to configure the Host for myCloud connectivity. You can also do this later, by running the Wizard again.

g. Communication profiles
The Wizard will allow you to modify communication profiles. This is for advanced usage and usually you will not need to change these settings.

h. Completing the configuration
Press the button Finish to complete configuration and you should see the message screen "License applied successfully", if the program was licensed via the Wizard. IF you exit the Wizard prematurely, the program may not be licensed to run and any changes to default settings will not take effect. You can run the Wizard again from the Host; press the Wizard button.
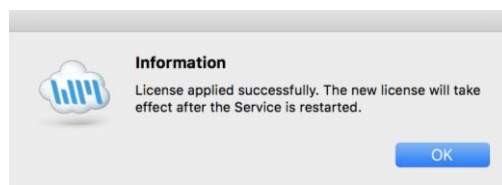
1.4 Ready for remote control
When installed and configured, the Host is ready for a Guest user to connect to it. To verify this, you open the Host Manager program, e.g. via the status bar. Click the Host icon and select Show.

Select the "Program Status" option found in the left pane. Verify that the "Status" section in the right pane shows Running.

Check the "Initialized communication profiles section" to verify the Host is on-line with your myCloud domain, if it has been setup for communication via myCloud. You should see a profile with myCloud as Device, and the name of your domain shown in the Details column.

This section also shows if the Host can be reached directly via UDP or TCP including their respective port numbers (displayed as 'Send port'/'Receive port').

Verify that a valid IP address is shown in the "Names and addresses" section. This section also shows the Host ID and possibly a User name. These are important ID's, a Guest user may use to address or identify the Host with.

2. Examples of Remote Control of a Host computer

The module you use to access and remote control a distant Mac is called a Guest module.

You can remote control your Mac from a number of different platforms by using the applicable WiseMo Guest module. For example, you can remote control from an Android device, an iOS device (iPhone / iPad), from a Chrome browser on Mac, Linux or Windows PC, from an IE browser or browsers supporting NPAPI components on Windows PCs. Finally you can use our most feature rich Guest module, the Windows Remote Desktop Guest, installed on a Windows PC.

In this document we show an example of remote control of Mac from a Windows PC, via myCloud (internet communication) and an example of remote control directly via TCP/IP on a LAN / WAN network managed by you. For more info on the use of other Guest types, please see the documentation relevant for each module here: http://www.wisemo.com/support/documents/

2a.   Remote control from a Windows PC over the Internet (using WiseMo myCloud)

1. It is assumed that you have a myCloud domain and that you have deployed at least one Mac Host that is connected to this myCloud domain.

    myCloud from WiseMo is a cloud based service for easy remote control connectivity between computers and devices, e.g. PCs, Servers, Mac, Smartphones, Tablets and other handheld or un-attended devices. It also provides deployment options, including download links and SMS deployment links, to help you easily deploy pre-configured and pre-licensed Host and Guest modules. If you do not already have a myCloud domain, sign up for a free trial or a paid domain here: www.wisemo.com/mycloud

2. Start the Windows Remote Desktop Guest module on your PC. You can get the Guest module here: https://shop.wisemo.com/purchase/RSM/DownloadTrial.aspx or directly from the Deploy tab in your myCloud account.

3. With a myCloud domain and your Guest logged into it, you simply double click the Host computer or device you want to remote control.

4. Select "myCloud connections" from the menu, found in the left pane.

5. Double click on the Host, or right click and select the Remote Desktop option.

6. You can also select the Host and use the Remote Desktop button found on the Connection tab in the toolbar.
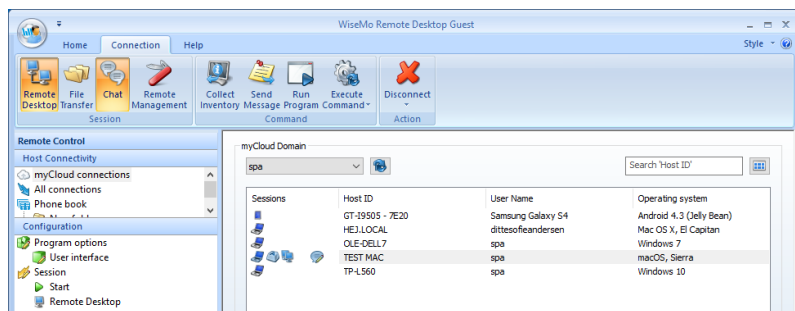
7. The program will connect to the Host and open a separate remote desktop control window, showing the desktop of the remote Host computer or device. Select the window and start remote controlling the remote Host – as if you were seated in front of it.

8. The remote control session can be ended by closing the window, or pressing the disconnect button.
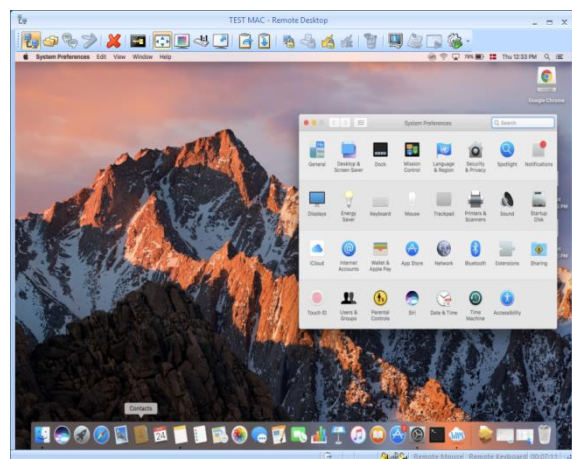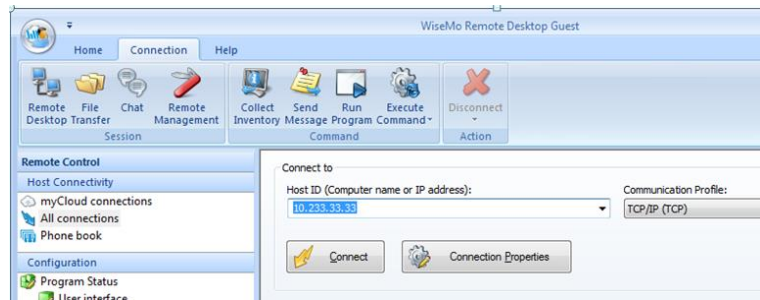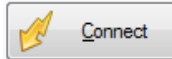
2b.   Remote control from a Windows PC using TCP/IP

A typical and quick method for taking control of a computer or device on your TCP/IP network is to specify the IP address or Computer name of the Host, and then connect.

Select "All connections" from the menu, found in the left pane.

Enter the IP address in the Host ID field.

Press the Connect button

(or click the Remote Desktop button on the Connection tab)

The program will connect to the Host and open a separate remote desktop control window, showing the desktop of the remote Host computer or device.

Select the window and start remote controlling the remote Host. Your Guest's mouse and keyboard input is executed on the remote Host computer or device.

By pressing this button, you can easily view the complete remote desktop inside the sizeable window.
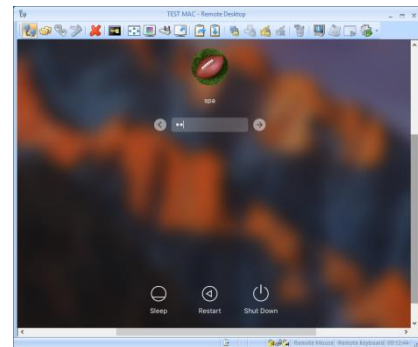
3. Host features

The Host module prepares a Mac computer to be remotely reached by WiseMo Guest users, and provides a number of features and functions that greatly enhances your benefit and value. This irrespective of whether your purpose is to support the un-attended situation or the situation where a user is present at the computer. You can remotely work on the computer as if you were in front of it, or provide remote support and assistance to troubled users. Perhaps you need to transfer files and directories back and forth or just connect from anywhere to log-off or shut-down the computer.

Subject to being supported by the Guest module used, and permitted by the security settings on the Host, the Host offers Remote Desktop Control (view and control), Remote clipboard transfer, Host screen blanking for privacy, File Transfer, Hardware / Software inventory collection, Chat and more. It also allows for multiple Guests connecting simultaneously to the same host.

The Mac Host supports many features, here's an example of features available to the Guest user when connected to a specific Host computer.
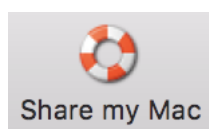
An example is the "Share my Mac" feature that a user on a Host computer can use to invite someone to temporarily access the computer, maybe to provide help, or to demonstrate something. The "Share my Mac" feature creates a link the Host user can pass on to anyone with a WiseMo Guest module or a supported browser (Chrome, IE, ...).

4. Host structure

The Host module consists of a Host Daemon and a Host Manager program that provides the user interface. The Host Daemon may run without the Host Manager running, however with some features unavailable, for example Chat, or the Confirm Access screen, as they require user interface.

The Host Manager's user interface is organized with a Toolbar with buttons at the top and a Navigation bar in the left pane, where the details of each menu item are shown in the right pane.
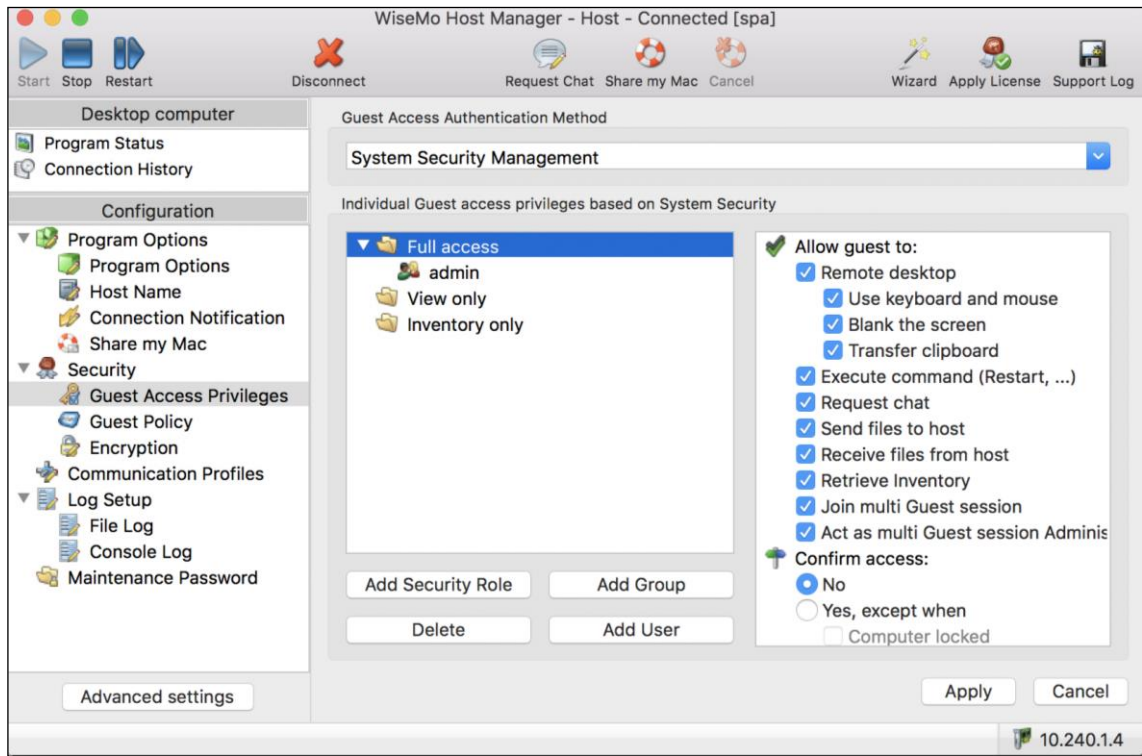

4.1 The toolbar

There are tool-tips available explaining each button shown on the toolbar - just position the cursor over the button in question. Right click on the toolbar to customize it.

 You can Start communication. This will initialize the Host including its communication settings, so it is ready to receive a call from a Guest user. The button Stop will pause the ability of the Host to accept connections. The Restart button allows you to stop and start the Host with a single click, especially beneficial after having made configuration changes that require a re-start of the Host communication to take effect.
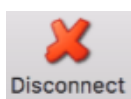
 Disconnect the connection with the Guest.

If multiple Guests are connected to the Host computer simultaneously, all will be disconnected.
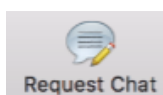
 When connected to a Guest user, it is possible from the Host Manager to initiate a chat session with the Guest user.

The "Share my Mac" button provides the Mac Host user with the possibility to create an invitation link, to allow a third party temporary access to the computer. This feature requires that the Host is logged into a myCloud domain, and that the feature is enabled. Clicking the button brings up the "Share my Mac" window, from where it is possible to define duration of the invitation link, security settings and execute the actual creation of the link. When created, pass the link to a third party, e.g. by emailing it. The third party can execute the link from a supported browser or from an installed WiseMo Guest (for example Android, iOS and Windows). **TIP:** From the Hosts configuration menu, disable / enable the feature and configure the number of connections allowed and actions to happen after the link has expired.

An active link can be cancelled by using the button" Cancel" or via the button Share my Mac, which brings up the "Share my Mac" window used when creating the link. This screen also shows the time left of the invitation.

Press the Wizard button to run the Configuration wizard. Use it for example to change which mycloud domain the Host should connect to. It also guides you through various Host configuration settings, such as Security choices. See also section 1.3 above.

The Apply License button allows you to enter a WiseMo license key – without having to run the Wizard.
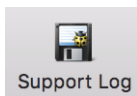
Saves a log file with lower level communication between Guest and Host – used for trouble shooting reasons. If you report a problem, WiseMo support may request that you create this log and send it to us.

4.2   The Navigation bar

Select an item in the navigation bar (left pane), and the details are shown in the right pane.

The navigation bar is divided into groups, Desktop computer and Configuration. Each group contains a number of menu items, which are covered below.
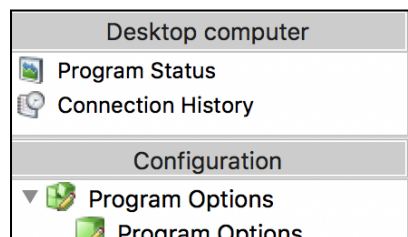
4.2.1 Program Status

Select Program Status and view the information displayed in the right pane. The status of the Host service is shown in the Status section. It shows "Running" when the host is ready for a Guest to connect to it. The Host must be licensed, and at least one communication profile must be initialized, to reach the status of Running.

The Names and addresses section shows the Host ID, User name (if any) and the IP address(es).

The Initialized communication profiles section shows the Communication Profiles that has been initialized. The Guest must connect to the Host using one of the initialized communication profiles. For the myCloud profile, the Details column shows the name of the domain the host is logged into.

The section "Active guest connections" shows which guest(s) that is connected to the Host, the type of session (indicated by an icon), the Guest User's name, and which encryption level is used.

4.2.2 Connection History

A list of Guests connected / disconnected, with date and time stamp, since the Host was started. For more advanced logging, please use the extensive event logging features available (see later).

Tuesday, August 21, 2018

4.2.3 Program Options

This section contains configuration options for the Host program and consists of 4 items covered below. When changes are made to configurations, remember to press the Apply button. Some changes require the Host to be re-started to take effect.
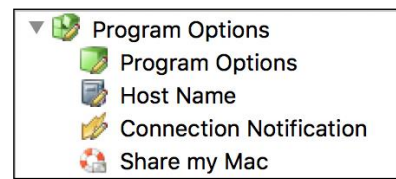

Program options

Startup: Check this setting to have the Host Daemon initialize communication when it is loaded. Otherwise you will manually have to press the Start button in the Host Manager. You can define the Host should automatically stop after a specified time of inactivity (no Guest user connected).

User Interface: Settings that define whether the Host Manager is visible or not, and if visible, how and where it is shown.

Connection: Controls various connection settings. The Send Keep Alive messages ensure that the Host will detect if the Guest module suddenly is no longer available. The host can be accessed by multiple Guests simultaneously, unless the setting "Allow multiple simultaneous Guest sessions" is disabled.

Host Name
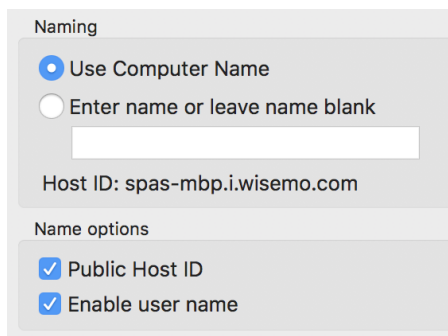
Settings to help you customize which IDs are available for Guest users, when they need to address or select the Host. For Mac computers you will often want to simply use the Mac Computer name as Host ID. Alternatively, you can provide your own Host ID. If you check the "Enable user name", the name of the logged in Mac user will be shown in the myCloud list of available Hosts. If Public Host ID is not checked, the Host ID will not be shown in the myCloud list of Hosts, a list which is shown to Guest users logged into the myCloud domain. A Guest user will then have to enter the Host ID to be able to connect to the Host via myCloud.

Connection Notification

A number of options are available to tailor how a user is notified upon connection, during connection and after connection. This includes sound and visual displays. As default, the Guest name (if available) is shown in the title bar.
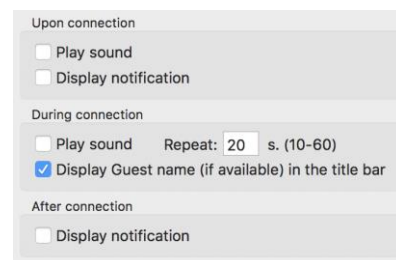

Share my Mac

Configuration options for the behavior of Invitation links created by the Share my Mac feature. Disabling the feature will disable the Share my Mac button in the toolbar.

Options include how many connections are allowed from a link and what to do after expiration of the invitation link.

It is possible to automatically Stop the Host (so it does not listen for incoming connections) upon expiration of a link, meaning connection is no longer possible from any Guest, until the Host communication is started again. (Notice: This does not override the Startup setting to automatically listen for incoming connections, when the Host service is started, for example after start of the computer).
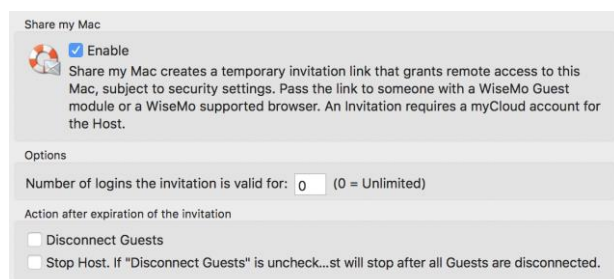
4.2.4 Security

This section controls the security settings for the Host, and consists of 3 items, each are described below.
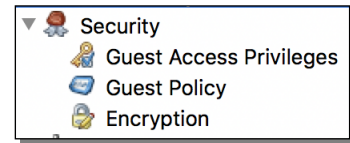
Guest Access Privileges
Controls the Authentication method and what an authenticated Guest user is permitted to do.

The permissions are defined via the use of Security roles.

It is possible to restrict many different actions an authenticated Guest user otherwise is permitted to do.

You can for example define whether Sending or Receiving files are permitted, or if a Guest user is permitted to retrieve an Inventory of the Host computer, or perhaps to restrict the Guest user to only view the screen, but not allow control of keyboard and mouse. The illustration shows the available permissions.

A Guest user must be assigned to a certain role for the permissions to apply to this Guest user.

Use the Confirm Access feature to require that a person on the Host computer provides permission prior to access (use only this feature for situations with attended Host computers).
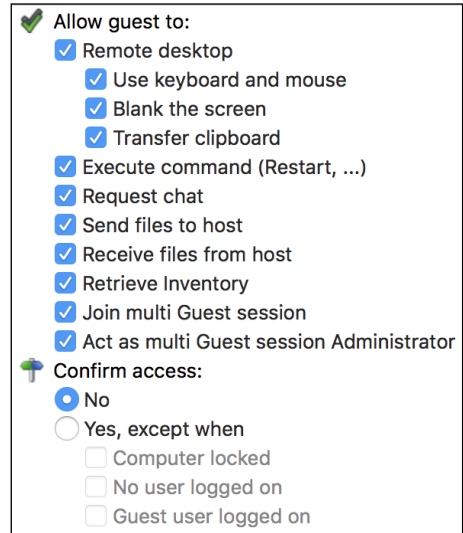
There are 4 authentication methods available:

a. Shared password: The Host is protected by a single password and a default security role is used for defining access rights.

b. User name and password: Guest users have their individual user name and password. Each Guest user is assigned to security roles that govern their permissions. As default, WiseMo has created 3 different Security roles. You can define your own security roles, or modify the roles defined by WiseMo.
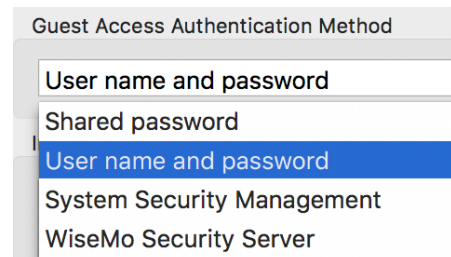
c. System Security Management: Uses MacOS system security to authenticate the Guest users.

You can add Users and Groups for the local computer. Each Guest user or group is assigned to security roles that govern their permissions.

Please note that a Guest user can be indirectly assigned to more than one role via their group memberships. The resulting permissions are the added permissons of all roles the user is specifically added to and indirectly added to via membership of a group. However, Confirm Access is not enabled if a user is directly or indirectly assigned to a role without Confirm Access.
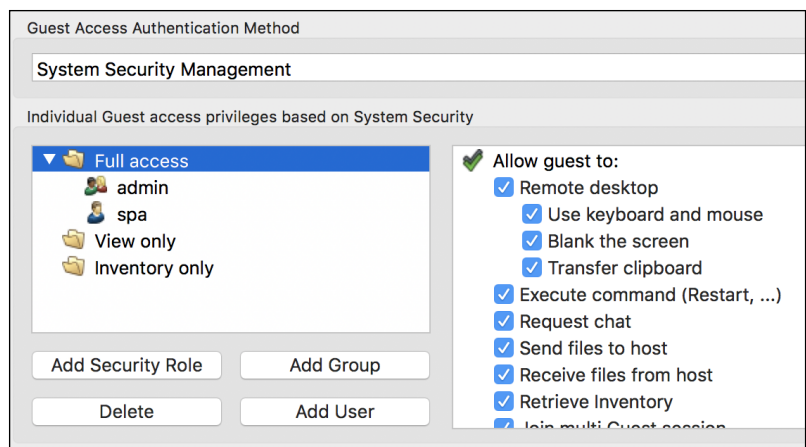
As default, WiseMo has created 3 different Security roles. You can define your own security roles, or modify the roles defined by WiseMo.

d. WiseMo Security Server: Individual Guest permissions based on a WiseMo Security Server, which is an extra cost module for centralized management of security between Guests and Hosts.

Guest Policy
This section controls what should happen after a Guest user disconnects, for example do an automatic computer log-off. It also controls how many password attempts are allowed and what should happen if the maximum is reached.

Encryption
The Host offers a number of encryption levels and data integrity features to ensure that the data stream has not been tampered with. Options includes from none to very high encryption.

The settings of the Host ultimately dictates which encryption settings can be used. A Guest user may request its preference, and if permitted by the Host settings, this preference will be used. Otherwise, an encryption level permitted by the Host will be used, except if the Guest has preferred the Classic level, in which case connection is not possible unless the Host allows this specific level. As default, the Host permits all encryption levels.

Each type of encryption is explained by selecting it and pressing the Show details button. The picture to the right shows the explanation for the setting Very high.

Encryption Details

Name: Very high

Description: Everything is encrypted with 256 bit keys

Scope: Use for communication in environments where security is important and speed is not a major issue or less important

Encryption:
 Keyboard and mouse: 256 bit AES
 Screen and other data: 256 bit AES
 Logon and password: 256 bit AES

Integrity check:
 Keyboard, mouse: 256 bit SHA HMACs
 Screen and other data: 256 bit SHA HMACs
 Logon and password: 256 bit SHA HMACs

Key exchange: Combination of 2048 bits Diffie-Hellman, 256 bit AES and 512 bit SHA

Using strong encryption may come at the expense of CPU usage. If you are connecting via networks not controlled by you, e.g. the Internet, you should always use some form of encryption. If you are running on a network managed by you, it may make sense to select less secure encryption. WiseMo Guest modules (from v.17) will as default attempt to use VERY HIGH encryption.


Address filtering
You can limit the IP addresses from which a Guest User can connect to the Host. This can also be defined in the form of ranges. It is a good measure to use, if permitted Guest users run from static IP addresses or ranges of IP addresses. Guest users from IP addresses not listed will be denied access early on in the connection process. This feature should not be used in connection with myCloud connectivity, and only by advanced users. Use the "Advanced Settings" button, to configure Address filtering.

4.2.5 Communication Profiles
Allows for advanced configuration of the communication profiles used by the program. The program supports communication via TCP, UDP and via myCloud connectivity.

For TCP/IP profiles, you can for example change the send/receive port numbers used by the Host. For mycloud profiles, the domain credentials can be defined, however, it is strongly recommended to use the Wizard for configuration of myCloud connectivity, as it uses the myCloud User account credentials. Use the Advanced Settings button, to otherwise configure Communication Profiles.

4.2.6 Log setup
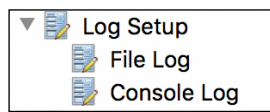
The Host provides for extensive logging of activity related to the Host.

Logging can be made to the console log, or to a file, stored either locally or on another computer/server.
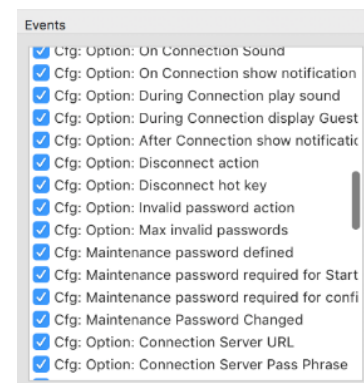
4.2.7 Maintenance Password
To protect against changes to the configuration or the use of the Host's control buttons Start, Stop and Re-start, you can add a maintenance password.

4.3 Misc.

Support for multiple languages
The Mac Host program is localized to various languages, and will automatically use the language chosen for the Mac computer, if available. Otherwise it defaults to English.

About
The About screen is reached via the WiseMo Host icon shown in the status bar at the top of the Mac computer.

It provides information about the program including version, licensing and copyright notices.

If it is not possible to connect to the Mac computer from a WiseMo Guest, you can verify here if the Mac Host module is validly licensed. Perhaps a trial license has expired.

5. Updating or removing the Mac Host module
A newer version or service release of the Host application can be installed on top of the previous one. Updating an existing installation will as default preserve configuration settings, which are found in the Host.xml file located in the "/etc/WsmHost" folder.

You can delete the Host.xml file prior to installation, if you want to start with default configuration settings.

Exception: If you install via a myCloud deployment link, for example sent via email or other methods, the Host will always be enabled for this specific domain. Furthermore, if a customized configuration file has been added to the deployment link, this configuration file is always used, replacing any existing configuration file on the computer. This allows for deployment of configuration settings via the use of myCloud deployment links.

Removal of the WiseMo Host application from a Mac computer is done like you would remove any other Mac program. For example it can be done by running the WiseMo Host Uninstall.pkg file found in folder "/Applications/WiseMo RSM".

Uninstalling the Host program does not remove certain temporary files and configuration files, for example the configuration and license files found in the "/etc/Wsmhost" folder.

6. License information for the Host program

The Host program, version 17, can be licensed in various ways.

myCloud licensing (subscription)
Requires that the Host is logged on to a myCloud domain, so the Host must be able to communicate via the Internet. A Guest user can use myCloud connectivity, as well as direct TCP/IP connectivity to reach a myCloud licensed Host.

Use myCloud licensing if you need to reach the Host via the Internet, or if you prefer the subscription based payment model for direct TCP/IP connectivity between the Guest and Host.

You can apply a perpetual license key to a myCloud licensed Host. This will switch it's licensing into a perpetual license for TCP/IP connectivity. It can still connect via myCloud as long as it is logged into a myCloud domain (which still consumes a myCloud license).

Perpetual licensing (one-time fee)
Requires that a license key is applied to the Host. A Guest user can use TCP/IP connectivity to reach the Host. It is also possible to log the Host into a myCloud domain for myCloud connectivity (consumes a myCloud license).

Use perpetual licensing if you need to reach the Host directly via TCP/IP and Internet is not available or if you do not want to depend on the availability of the Internet.

Trial license
Installing a Host module which is not deployed from a myCloud domain, will prompt for a license key during installation. If a trial key is entered, the Host will run for a limited time only (you can request a trial license key here).

You can switch a Host trial to myCloud licensing, by deploying the Host from a myCloud domain, or by running the Wizard from the toolbar and selecting myCloud licensing.

If you want perpetual licensing, purchase a license key and apply it, either via the Wizard, or by using the Apply License button found in the toolbar. (If you have a myCloud domain, you may also add the license key to a deployment link. Installing via such link will apply the license key and configure the Host to connect to the myCloud domain.)

7. Glossary

Computer – Any Server, Workstation, Desktop, Laptop that runs an operating system supported by the Guest or Host module.

Device – Any Smartphone, Tablet, Set-top box, Scanner, or other handheld or un-attended device that runs an operating system supported by the Guest or Host module.

Guest – the module installed on a computer or device, e.g. PC, Mac, on an iPad, iPhone, Android device or running from a supported Browser. From the Guest module, a user can remote control another device or computer where the Host module is running.

Host – the module installed on the target computer or device that should be remotely controlled from the Guest module. It can for example be a PC, Mac, Smartphone, Tablet, Set-top box, or any other type of device that runs a supported operating system.

Host Configuration Manager – also termed Host Manager. A tool used for configuring a WiseMo Host application. It is installed on the computer and communicates with the Host service.

Communication profile – protocol configuration for the communication between a Guest module and a Host module. There are two main communication methods: TCP/IP and myCloud. Before connecting from a Guest to a Host you should specify on the Guest which communication profile to use.

myCloud – one of the communication profiles. myCloud communication is an internet based protocol that allows connection through firewalls, proxies and NAT'ed networks. It comes as part of WiseMo's myCloud subscription based service for easy remote control connectivity between computers and devices.