RAAS Client1

تم بناء RAAS على عنصرين: RAAS Client و RAAS Server. من أجل التحكم في الخوادم أو أجهزة الكمبيوتر المضيفة، RAAS Server يجب تثبيته على أجهزة الكمبيوتر المضيفة قبل تكوين أجهزة الكمبيوتر المضيفة على جانب العميل باستخدام RAAS Client التطبيقات. يحتوي هذا القسم على تعليمات لتثبيت وتكوين واستخدام RAAS Client.

1.1 التثبيت

RAAS Client يمكن تثبيته بتنزيل ملف RAASClient_[version]_x64.msi وتشغيله على جهاز الكمبيوتر المستهدف. إذا كان التثبيت الافتراضي كافيًا، فكل ما عليك فعله هو قبول اتفاقية الترخيص والنقر على زر التثبيت.

متطلبات النظام: يدعم إصدارات 64 بت من Windows 10 و11 Pro وEnterprise. يلزم وجود NET Framework 4.8.

1.1.1 الإعدادات المتقدمة

إذا لم يكن التثبيت الافتراضي مناسبًا، يُمكن تخصيصه بالنقر على زر "خيارات متقدمة" أثناء التثبيت. يحتوي القسم الأول على خيارات التثبيت على مستوى الجهاز، والذي سيكون متاحًا لجميع المستخدمين، أو على مستوى المستخدم،

والذي سيكون متاحًا فقط للمستخدم الحالي. بالنقر على "التالي"، سينتقل المستخدم إلى قائمة الميزات. في هذا القسم، يُمكن اختيار الميزات المُراد تثبيتها عن طريق تفعيلها أو تعطيلها في الواجهة. تُعرض تفاصيل كل ميزة أسفل مربع التحكم عند تحديدها.

نصيحة: RAAS Client يمكن تشغيله بالنقر بزر الماوس الأيمن على أيقونة الإشعارات. لإظهار أيقونة الإشعارات دائمًا في شريط المهام، انقر على "إظهار الأيقونات المخفية في شريط المهام" واسحب RAAS Client أيقونة إلى منطقة الأيقونات المرئية.

RAAS Server Configuration1.2

RAAS Server Configuration يمكن البدء من قائمة ابدأ، عن طريق النقر بزر الماوس الأيمن على خادم في مستكشف الملفات واختيار "RAAS Server Configuration"أو عن طريق النقر بزر الماوس الأيمن على RAAS Client الرمز في علبة النظام واختيار "RAAS Server Configuration"في القائمة الجذرية أو في إحدى قوائم الخادم. يُستخدم لتكوين الإعدادات التي يجب تطبيقها على كل خادم.

- يمكن تحديد الخوادم من خلال قائمة الخادم، لتغيير التكوين لخادم معين.
- لإضافة خادم انقر فوق الزر "إضافة..." متبوعًا بإدخال اسم الخادم أو عنوان IP الخاص بالخادم ثم انقر فوق الزر "إضافة".
- لإزالة خادم، حدد الخادم الذي تريد إزالته وانقر على زر "إزالة".

يتم تنظيم التكوين في علامات تبويب، ويتم تقديم الإعدادات المتوفرة ضمن كل علامة تبويب في الأقسام التالية.

1.2.1 عام

- **تفعيل الخادم** : يُفعّل الخادم ويُطبّق جميع إعداداته. لا يُفعّل الخادم إلا بعد ضبط جميع الإعدادات.

إعدادات:

- **الاسم المستعار** : يحدد الاسم المستعار الذي يجب أن يمتلكه الخادم في جميع RAAS Client الواجهات.
- **الحساب** : يحدد حساب Windows الذي سيتم استخدامه للتواصل مع الخادم.
- **Password**: Determines the password to the windows account to use for communication with the server.
- **Domain**: Determines the domain for the windows account to use for communication with the server.
- **RDP authentication**: Determines which authentication rules to use when connecting though RemoteApp to the server, using the RDP protocol.

- **Auto reconnect**: Determines if RemoteApp should be reconnected to automatically if it was connected to before lock, sleep or hibernate etc.

- **Autostart startup programs**: Determines if applications which are configured to start automatically during startup on the server should start automatically through RemoteApp when first connecting.

- **Keep alive agent**: Determines if a keep alive agent should be started through RemoteApp on the server when first connecting, to prevent the connection from automatically disconnecting when no applications are opened.

- **Redirect clipboard**: Determines if clipboard redirection should be on or off.

- **Redirect devices**: Determines if devices should be redirected. This option requires additional settings to be active, which are documented by Microsoft.

- **Redirect printers**: Determines if printer redirection should be on or off.

- **Show notifications**: Determines if the user should receive a balloon tip notification when connecting or disconnecting RemoteApp. Notifications need to be activated in Windows settings for notification to work.

RAAS Server Connection:

- **Status**: Displays information about the servers current communication status. "No contact" indicates that no communication is present, "Contact" indicates that the server is reachable, "Available" indicates that communication with the RAAS Server service on the server is present and "Connected", which indicates that the server is connected to through RemoteApp.

- **RAAS Server version**: This information is only present if communication with the RAAS Server service on the server is present, and indicates the installed version of RAAS Server on the server.

- **Connect/Reconnect**-button: Used to connect or reconnect to the server through RemoteApp.

- **Disconnect**-button: Used to disconnect the server from RemoteApp.

1.2.2 Remote Shortcuts

- **Enable remote shortcuts**: Makes remote shortcuts active and applies all remote shortcuts settings.

- **Create start-menu shortcuts**: Determines if start-menu shortcuts on the server should be transferred to the current user of the local computer, to be started through RemoteApp. Shortcuts will be placed in a dedicated folder in the start-menu with the name format [Server alias].

- **Create Windows Apps shortcuts**: Determines if Windows Apps shortcuts on the server should be transferred to the current user of the local computer, to be started through RemoteApp. Shortcuts will be placed in a dedicated folder in the start-menu with the name format [Server alias]. For Windows Apps shortcuts to be tranferred after an installation Update Shortcuts need to be chosen for the server from the RAAS Client notification area.

- **Create desktop shortcuts**: Determines if desktop shortcuts on the server should be transferred to the current user of the local computer, to be started through RemoteApp.

- **Place desktop shortcuts on desktop root**: Determines if transferred desktop shortcuts from the server should be placed on desktop root of the current user. The alternative is to place them in a dedicated folder on the desktop with the name format [Server alias].

- **Append server alias to shortcut names**: Determines if shortcuts that are transferred from the server should be given names that are appended by the server alias.

- **Server language for shortcut names**: Determines if shortcuts that are transferred from the server should be given names according to the installed language on the server.

1.2.3 Visualizations

- **Enable visualizations**: Makes visualizations active and applies all visualizations settings.

Visualizations Settings:

- **Main color**: Determines the main color to use for all visualizations.

- **Text color**: Determines the color of text used for all visualizations.

- **Line color**: Determines the color of lines used for all visualizations.

- **Frames**: Determines if RemoteApp windows for applications on the server should have a frame decorization. The frames

can be used to indicate to the user which applications belong
to the server.

- **Connection bar**: Determines if a connection bar should be present when a RemoteApp window for an application on the server is active. The connection bar can be used to indicate that an application on the server is receiving input.
- **Connection bar opacity**: If "Connection bar" is set, this setting determines the opacity of the connection bar.

File Explorer Extension 1.2.4

- **Enable in File explorer extension**: Makes the server visible in the RAAS Client File explorer extension and applies all effective RAAS Client File explorer extension settings.

Visible Folders: Use these options to determine which user folders that should be visible for the server in the File explorer extension.

Visible Devices and Drives: Use these options to determine which types of devices and drives that should be visible for the server in the File explorer extension.

RAAS Client 1.3

The RAAS Client application is reached through its system tray icon. When right-clicking the icon in system tray a context menu will appear. The menu items of this context menu will be described in this section.

- **Remote Desktop**: Opens the RAAS Client "Remote Desktop" application, with no server selected.
- **RAAS Server Configuration**: Opens the RAAS Server "Configuration" application, with no server selected.
- **Help (pdf)**: Opens a pdf with help concerning RAAS.
- **About**: Opens a window with information about the RAAS Client installed.
- **Exit**: Closes RAAS Client.

The context menu contains one sub menu for each enabled server. A red circle before the server name indicates that the server is offline, a yellow circle before the server name indicates that the server is available and a green circle before the server name indicates that a connection through RemoteApp to the server exist.

Server sub context menu:

- **Connect**: Creates a connection to the server through RemoteApp.

- **Disconnect**: Disconnects the server from RemoteApp.
- **Reconnect**: Reconnects the RemoteApp connection to the server.
- **Loggoff**: Logs out all logged in users from the server.
- **Reboot**: Reboots the server.
- **Update Shorcuts**: Updates all remote shortcuts from server. This action is required when installing Windows Apps shortcuts.
- **Remote Desktop**: Opens the "RAAS Client Remote Desktop" application with the server selected.
- **RAAS Server Configuration**: Opens the "RAAS Server Configuration" application with the server selected.

1.4 File Explorer Extension RAAS Client

If shell namespace extension is installed for RAAS Client, there will be a section in File explorer called "RAAS Client" in the treeview of File explorer root level. This section can be used to handle files and folders for each server which has File explorer extension active in settings. It is designed to function just as normal handling of files and filders in File Explorer, with some additional options which are described in this section.

Right-clicking a server:

- **Remote Desktop**: Opens the "RAAS Client Remote Desktop" application with the server selected.
- **RAAS Server Configuration**: Opens the "RAAS Server Configuration" application with the server selected.

Right-clicking a file:

- **Open on remote host**: Opens the file on the remote host through RemoteApp.
- **Create remote shortcut**: Creates a shortcut which starts the file on the server through RemoteApp when activated. The file is created in the current folder.

Right-clicking a file and dragging it to another location before release:

- **Create remote shortcut here**: Creates a shortcut which starts the file on the server through RemoteApp when activated. The file is created in the location which the file was dragged to.

1.5 RAAS Client Remote Desktop

can be started by right-clicking a server "RAAS Client Remote Desktop" in the File explorer extension and choosing "Remote Desktop" or by right-clicking the RAAS Client icon in system tray and either choosing "Remote Desktop" in the root menu or in one of the server menus. It is used to connect to a server with remote desktop using the stored .RAAS Server Configuration credentials, which can be configured using

- **Server**: Choose the server to connect to using remote desktop.

Settings:

- **RDP authentication**: Determines which authentication rules to use when connecting though remote desktop to the server, using the RDP protocol.
- **Redirect clipboard**: Determines if clipboard redirection should be on or off.
- **Redirect devices**: Determines if devices should be redirected. This option requires additional settings to be active, which are documented by Microsoft.
- **Redirect printers**: Determines if printer redirection should be on or off.
- **Fullscreen**: Determines if remote desktop should be started in fullscreen mode.
- **Connection bar**: Determines if a connection bar should be present in fullscreen mode.
- **Pin connection bar**: Determines if the connection bar should be pinned initially.
- **Dektop width**: Determines the desktop width for the remote desktop session.
- **Desktop height**: Determines the desktop height for the remote desktop session.

Search & Run 1.6

Search & Run provides an easy way to search for installed applications on the server and then run the applications. It is installed on the server but is inteded to be used as a RemoteApp application through RAAS Client on the client computer. It functions as a replacement for Windows search, which is not accessible through RAAS Client. Searching for files is performed by looking for files which begin with the provided string in the search field. "*" in the string matches any string and "?" in the string matches any character.

RAAS Server 2

In order to control servers, or host computers, through RAAS Client , RAAS Server needs to be installed on the host computers.

Installation 2.1

RAAS Server is installed by downloading RAASServer_[version]_x64.msi to a server, or host computer, and opening the file. If default installation is sufficient the only actions which need to be taken is accepting the licence agreement and hitting install.

In order use RAAS Server from a RAAS Client computer, you need to login once through the desktop interface once the program is installed with the user you wish to control the server with through RemoteApp.

System requirements: Supports 64 bit versions of Windows 10 & 11 Pro and Enterprise as well as Windows Server RDS. .NET Framework 4.8 and .NET 8 are both needed..

Advanced settings 2.1.1

If default installation is inadequate, it can be customized by clicking the "Advanced" button when installing. In this section it is possible to choose which features to install by enabling or disabling features in the interface. Details of a feature is presented underneath the box containing the controls when selecting it.

- If installed on Windows Server for RDS access it is recommended to disable the ability to reboot the server from the RDS clients. This can be configured by clicking the "Advanced" button on the installation and selecting "Entire feature will be unavailable" for the feature named "Can Reboot".

Recommeded Windows 2.2 configuration

- It is recommended to allow password protected authentication to the computer shares on the server to allow access through the RAAS Client File explorer extension on the client computer. Documentation to provide password protected authentication to the computer shares on the server is documented by Microsoft.
- It is recommended to disable User Account Control, UAC, on the server to be able to install programs on the server

through RAAS Client RemoteApp. User Account Control and privilage escalation are not supported by RAAS Client RemoteApp. Documentation to disable User Account Control is provided by Microsoft.

- Remote desktop connections need to be allowed on the server for Microsoft RemoteApp to work with RAAS Client.
- RAAS Client communicates with RAAS Server through port 43000, this port need to be allowed through firewalls. An entry in Windows firewall is automatically created on installation of RAAS Server.
- An initial connect to the server with the user you wish to control the server with through RemoteApp is required for shortcuts to be created.
- If used with connection bar from RAAS Client, it is recommended to disable the Multi-tasking setting "Show snap layouts when I drag a window to the top of my screen", which is accessible in Windows system settings. That function comes in conflict with the RAAS Client connection bar when used simultaneously. Changing this will make the remote applications run more smoothly.

2.3 Search & Run

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3 Versioning

New versions of RAAS Client and RAAS Server should be published at the same time with the same version number corresponding to the version tag in GitHub. RAAS Client and RAAS Server should be compatible as long as the major version number is the same i.e. the first of the numbers in the file names.

4 Support

4.1 Common issues

File explorer may take longer time to start due to network locations being automatically added to quick access by Windows. In that case the problem will occur if the network location is unreachable.

- To resolve: Change open location for File explorer setting from "Home" to "This PC".