

Integrating the SunRay desktop with Cisco UC 5i BeAnywhere

5i's BeIngenious software application range has been designed to enhance the features of Cisco's Unified Communications products. The marriage between Sun Ray™ from Sun Microsystems and Unified Communications Manager™ from Cisco provides a compelling opportunity to deliver increased productivity and flexibility to organisations deploying Sun and Cisco solutions.

The Challenge

Many organizations who are investing in Sun Ray Ultra Thin Client technology today are looking to enhance the flexibility of session mobility by leveraging the Java Smart Card capability. Session mobility introduces significant employee flexibility. As well as giving the end user the ability to take their desktop with them wherever they need it, they are now making requests to take their phone with them.

The most common requirement is to leverage the existing investment made in the corporate telephony system and integrate that with Sun Ray session mobility to allow users to have a single sign on for their Windows session and IP phone.

Be-Anywhere for Sun Ray provides the ideal solution for companies looking to provide a single sign on solution and reap the benefits of session mobility.

Product Overview

Be-Anywhere for Sun Ray is an application which solves the annoying problem of having to log on securely to the Sun Ray workstation and then log into Cisco Unified Communications Manager.

- Be-Anywhere supports Sun's Terminal Client Connect and Virtual Desktop (VDI) solutions and integrates with JAVA SmartCard technology
- Be-Anywhere for Sun Ray logs users into the directly connected Cisco IP phone when the user logs into their Windows session providing the following business benefits:
- Reduces the time it takes for users to logon on to their Windows session and IP phone.
- The ability to remove a JAVA SmartCard and move to another Sun Ray client taking with you your current windows profile and your phone profile without the need to logout and back in allowing user to hot desk more easily.
- Introduces a more secure environment by reducing the risk of toll fraud. Leaving your phone logged in provides an opportunity for users to make unauthorised phone calls from your phone.
- Enable Operators and Contact Centre agents to see immediately whether users are at their desk allowing them to handle calls appropriately.

How it works

Be-Anywhere first queries the infrastructure and dynamically builds a database of Sun Ray clients and IP Phones in its local memory. The table is refreshed on a regular basis to identify any Sun Ray or IP phone which has been moved to an alternative location.

An optional 'forced logout' or 'prompt' is available to address situations where a user has previously logged into a phone connected to your Sun Ray. Cisco would normally prevent a second user logging onto a phone which is already logged in. Be-Anywhere provides the user with the option to force the user out from the phone before logging the user in.

When a user manually logs into the Sun Ray client, Be-Anywhere identifies the user ID and the MAC address of the Sun Ray into which the user has logged in. Be-Anywhere then initiates a table lookup to identify the IP phone directly connected to the Sun Ray client. A request is then made to the Cisco Unified Communications Manager to log the user into the phone. A similar process logs the user out from the IP phone when they log out from their Windows session.

When Be-Anywhere is installed alongside the Sun Ray terminal server or VDI using JAVA SmartCards, the Sun Ray user inserts his or her card into the Sun Ray workstation to log onto their Windows session. Each card has a number associated with it called a token which is associated to a user. The Sun Ray workstation has a unique MAC address on the network and this address is used to determine which Sun Ray the user has inserted his identity card to.

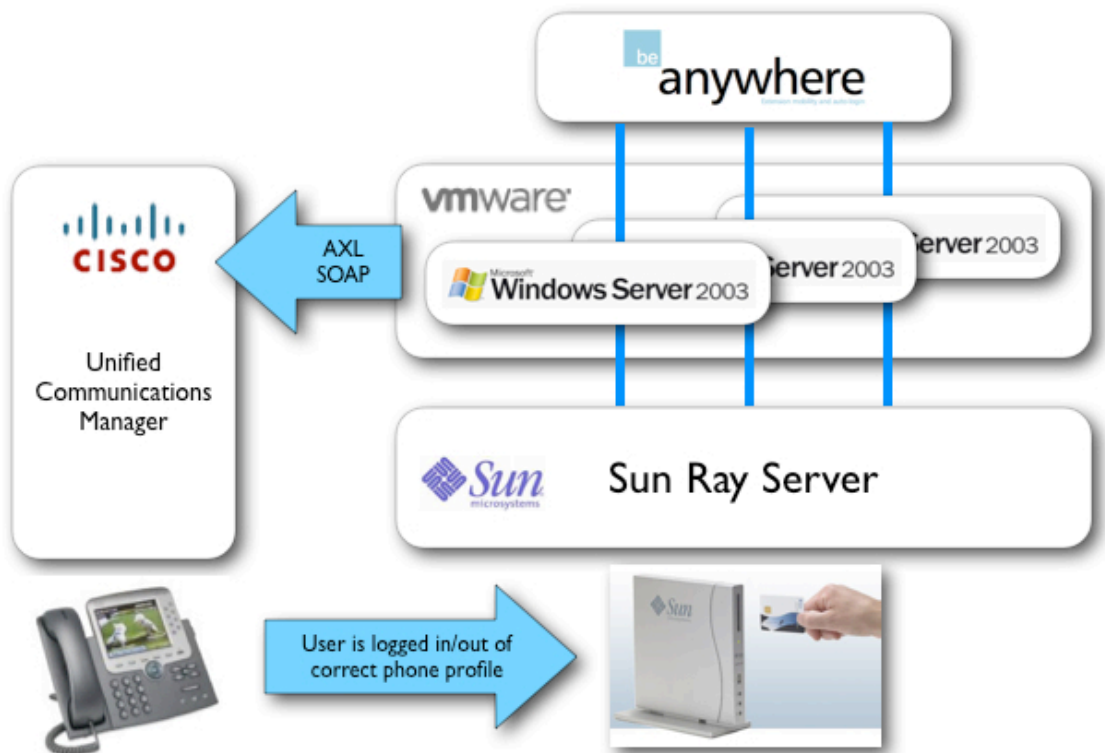
When the card is read, the Sun Ray server then looks up this token's unique ID to determine who the card belongs to. This information is stored in an internal Sun Ray database by default, but can also be stored externally in a corporate LDAP or Active Directory. A request is then made to the Cisco Unified Communications Manager to log the user into the phone. A similar process logs the user out from the IP phone when they log out from their Windows session.

Sun Terminal Client Connect Solution

When configured to work with Sun Ray Terminal Client Connect, a copy of the Be-Anywhere application is installed on each of the active Terminal Servers. Each Be-Anywhere entity will dynamically build a Sun Ray to Cisco IP phone matrix table in memory and monitor for users logging into their Windows session. The table contains the following information:

- A matrix of Cisco IP phone to Sun Ray client
- A list of Cisco user credentials so that a request can be made to Cisco Unified Communications Manager to log the user into the phone
- A list of Sun Ray user accounts

The table is dynamically refreshed on a regular basis to maintain an up-to-date matrix of Sun Ray client to Cisco IP phone by querying the infrastructure using open SNMP MIBs. When a user logs onto a Sun Ray client, Be-Anywhere identifies the user ID and the MAC address of the Sun Ray the user has logged into either by the manual login process or JAVA SmartCard. Be-Anywhere then initiates a table lookup to identify which IP phone is connected to the Sun Ray client and initiates an AXL SOAP request to Cisco Unified Communications Manager to login the user into the correct phone.



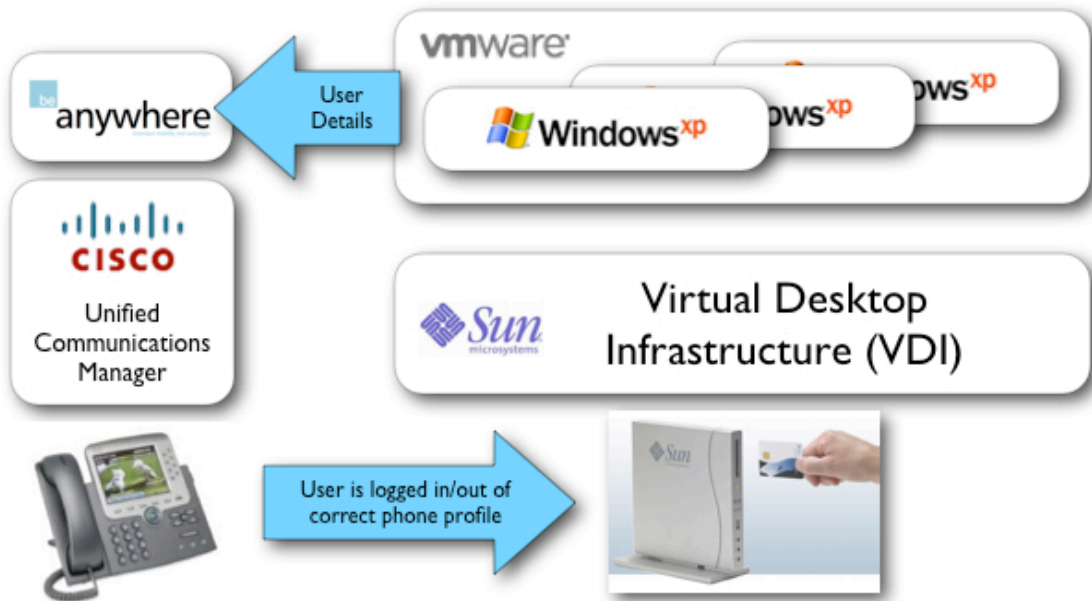
Similarly, when a user logs out or removes their JAVA SmartCard, the Be-Anywhere identifies the user and logs the phone out.

Sun Virtual Desktop Infrastructure

Sun Microsystems is developing their Virtual Desktop (VDI) solution to provide scalability to Sun Ray deployments. Be-Anywhere has met the challenge of this technology and developed Be-Anywhere to work in a VDI environment.

When used with VDI, a separate server is deployed with a single entity of Be-Anywhere running and a client applet installed onto each type of Windows XP images.

When a user logs onto the VDI software it initiates a Windows XP session the embedded applet identifies the Windows user and the MAC address of the Sun Ray client onto which they logged into. This information is passed to the Be-Anywhere server which then initiates a table lookup to identify the Cisco IP phone connected to the Sun Ray client sends an AXI SOAP request to Cisco Unified Communications Manager to login the user into the correct phone.



Similarly, when a user logs out or removes their JAVA SmartCard, the Be-Anywhere identifies the user and logs the phone out.

System Requirements

Be-Anywhere for Sun Ray Server works with the following versions of Cisco Unified Communications Manager:

- CUCM Version 4.3
- CUCM Version 5.1
- CUCM Version 6.1
- CUCM Versions 7.0, 7.1

Cisco LAN infrastructure with SNMP configured and a core switch running layer-3 routing

Server requirements (VDI deployments only)

Hardware Requirements:

Processor (min) 1GHz 32-bit processor; 512 MB RAM

Min Disk Requirements:

- NTFS File system formatted partition with a min 300 Mb of free space
- CD ROM or DVD drive
- Display 1024 X 768
- Minimum Network Requirements 56 Kbps between client and server

Working with 5i

'The accreditations held and the experience gained from many projects ensures the very latest innovations in Unified Communications solutions are brought directly into our customers' business delivery models.'

5i's accreditations reflect the breadth of its technology skills and expertise. They recognise 5i's knowledge and expertise in selling, designing, installing and supporting comprehensive Unified Communications solutions.

5i's accreditations include Cisco Advanced Unified Communications Specialist and Service Extension Partner; Microsoft Gold partner focusing on Unified Communications as well as many other third party applications such as Witness, Tiger, Zeacom and Stonevoice.

5i is also certified to the ISO90001 standard.

Your Trusted Partner

5i's biggest strength is its commitment and flexibility in turning our expertise into your success. To learn how 5i can help your business contact us at:

Tel: 0118 988 5558
Fax: 0118 988 5559

Email: info@5i.co.uk
Web: www.5i.co.uk

Address:

5i Limited, Napoleon House, Riseley Business Park, Riseley, Reading, Berkshire RG7 1QF