A Ubi U˙Y˙XY`fi hYbhY˙X]˙
Gi b˙F Um˙7 cbbYW˙cf ˙Zcf ˙K]bXck g˙CG˙&˙&

February 2011

ORACLE®

Tą˘a⼀Áẚ^‖Cơ}ơ^Áẚã🛚˘}ÁỦæ̂ÍÔ[}}^&ʠ¦Á[¦Á˘ą̊å[¸•ÁỦÙ⼂G

Manuale dell'utente di Sun Ray Connector for Windows OS 2.2 (Solaris)

Á

Á

Indice

Uso (tutti gli argomenti)

Avvio di una sessione Windows

Una volta installato il software Sun Ray Windows Connector è possibile avviare una sessione Windows su un'unità desktop (DTU) da un sistema Windows.

1. Accedere a una DTU.
2. Avviare una sessione Windows in un sistema Windows.

```
% /opt/SUNWuttsc/bin/uttsc <opzioni> <nome host.dominio>
```

Se il sistema Windows si trova nello stesso dominio del desktop Sun Ray, non è necessario specificare il nome di dominio. Se si preferisce, è tuttavia possibile specificare l'intero indirizzo IP anziché `<nome host.dominio>`.

Se si esegue il comando `uttsc` senza opzioni eccetto il nome o l'indirizzo di un sistema Windows, viene visualizzata una sessione Windows nella DTU Sun Ray, come illustrato nella seguente figura.
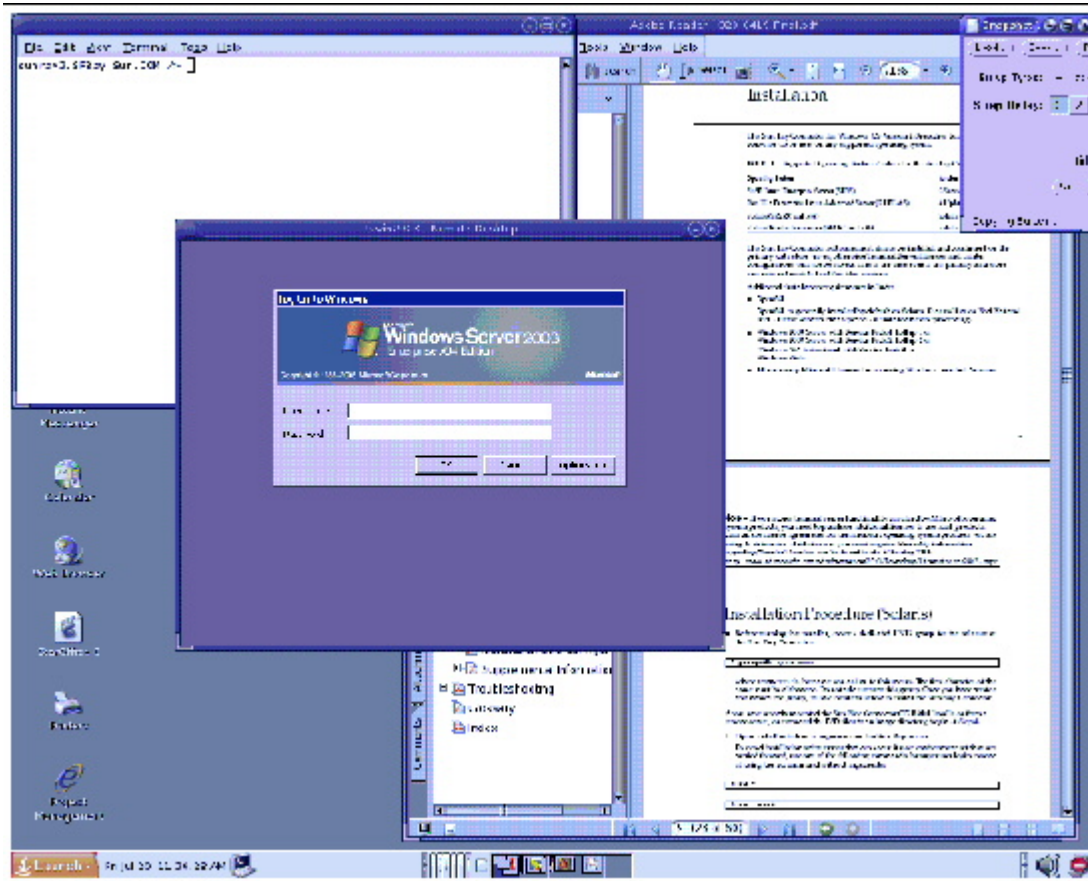
Le dimensioni predefinite dello schermo sono pari a 640 x 480 pixel.

Per visualizzare una sessione in modalità schermo intero o per modificarla in altri modi, vedere la pagina man `uttsc`(1).

Per visualizzare una sessione in più monitor mediante il comando `uttsc`, è necessario attivare XINERAMA nella DTU Sun Ray.

Avvio di una sessione Windows in JDS (Java Desktop System)

Il pacchetto di integrazione per Sun JDS (Java Desktop System) per il sistema operativo Solaris contiene un'interfaccia dalla riga di comando denominata `uttscwrap`, che migliora l'integrazione di Sun Ray Windows Connector con il desktop JDS in Solaris 10. Il pacchetto di integrazione per JDS è incluso nella cartella `Supplemental` dell'immagine software di Sun Ray Windows Connector.

Utilizzare `uttscwrap` nel caso in cui vengono impostati pulsanti o voci di menu per l'avvio di sessioni o applicazioni Windows in diversi sistemi Windows.

`uttscwrap` è dotato di una finestra di dialogo di login che consente di immettere le credenziali per l'autenticazione basata su password (`username/domain/password`). Le credenziali possono quindi essere memorizzate nella finestra di dialogo e vengono visualizzate all'avvio successivo.

> ℹ️ Nota
>
> `uttscwrap` è progettato per la memorizzazione delle credenziali solo per l'autenticazione basata su password. Non può essere usato per l'autenticazione con smart card. Per l'autenticazione con smart card, utilizzare direttamente Sun Ray Windows Connector (`/opt/SUNWuttsc/bin/uttsc`).

Le credenziali vengono salvate separatamente per ogni combinazione server Windows/applicazione. In tal modo è possibile salvare credenziali differenti, come indicato di seguito:

- Per applicazioni diverse sullo stesso server
- Per applicazioni diverse su server differenti
- Per sessioni server diverse senza avvio di applicazioni

Le nuove credenziali memorizzate per un server o un'applicazione sostituiscono quelle precedenti.

Procedura

Per avviare Sun Ray Windows Connector mediante `uttscwrap`, specificare nella riga di comando `uttscwrap` gli stessi parametri che vengono utilizzati normalmente nella riga di comando `uttsc`.

1. Accedere a una DTU.
2. Avviare una sessione Windows in un sistema Windows.

```
% /opt/SUNWuttscwrap/bin/uttscwrap <opzioni> <nome host.dominio>
```

Se il sistema Windows si trova nello stesso dominio del desktop Sun Ray, non è necessario specificare il nome di dominio. Se si preferisce, è tuttavia possibile specificare l'intero indirizzo IP anziché `<nome host.dominio>`.

Blocco di una sessione Windows

Questa procedura indica come bloccare una sessione Windows quando la sessione di un utente si sposta da una determinata DTU Sun Ray.

> **Nota**
> L'implementazione di questa funzione si basa su tecnologie che non sono disponibili nell'impostazione predefinita e su interfacce Sun Ray non pubbliche oltre che sull'utilizzo di alcune interfacce di Sun Ray in modalità diverse da quelle per cui sono progettate. Per questa ragione non è stata inclusa come funzione supportata.

Un approccio tipico consiste nell'inviare la combinazione di tasti per il blocco dello schermo alla sessione Windows utilizzando `xvkbd` (richiamato da `utaction`).

È possibile richiamare `utaction` da uno script `Xsession.d` o `xinitrc.d` come indicato di seguito:

```
#!/bin/sh
XVKBD=/usr/openwin/bin/xvkdb
/opt/SUNWut/bin/utaction  -d "$XVKBD -text '\Ml'" &
```

Poiché `xvkbd` non è disponibile per impostazione predefinita, è necessario modificare l'impostazione di `XVKBD` illustrata nell'esempio in modo che punti alla posizione in cui è stato installato `xvkbd`.

> **Nota**
> La sequenza di tasti `\Ml` attiva il blocco di Windows per le sessioni Windows 2003/XP. Può essere necessario sostituirla per altre versioni di Windows.

Configurazione dell'accesso alla pagina man `uttsc`

Per consentire agli utenti di accedere direttamente al comando `man`, aggiungere la seguente voce alla variabile MANPATH:

```
/opt/SUNWuttsc/man
```

Se è stato installato il pacchetto di integrazione per JDS (Java Desktop System) (solo Solaris), è necessario aggiungere la seguente voce:

```
/opt/SUNWuttscwrap/man
```

Per visualizzare una pagina man, gli utenti possono eseguire il seguente comando:

```
% man uttsc
```

Configurazione dell'accesso ai comandi di SRWC

Per consentire agli utenti di accedere direttamente ai comandi di SRWC, aggiungere la seguente voce alla variabile PATH:

```
/opt/SUNWuttsc/bin, /opt/SUNWuttsc/sbin, /opt/SUNWuttscwrap/bin
```

Il percorso `/opt/SUNWuttscrap/bin` viene richiesto solo se gli utenti utilizzano il pacchetto di integrazione per JDS.

Configurazione di un collegamento sul desktop per l'avvio di una sessione Windows

Attualmente non è disponibile un'interfaccia utente per Sun Ray Windows Connector. È tuttavia possibile configurare i pulsanti di avvio per predisporre icone del desktop o voci di menu che consentano agli utenti di connettersi alla sessione Windows.

Per ulteriori informazioni sulla configurazione dei pulsanti di avvio, consultare la documentazione del desktop per il sistema operativo in uso.

Mappatura delle unità disco locali

Qualsiasi file può essere attivato e mappato dall'ambiente Sun Ray all'ambiente Windows. I file system presenti nei dispositivi per supporti rimovibili, ad esempio le unità flash, collegati alle porte USB dei server Sun Ray, possono essere mappati per l'utilizzo nell'ambiente Windows mediante il comando `utstoraged`, dove appaiono come unità disco locali.

> **Nota**
> I nomi dei file Windows non possono contenere i seguenti caratteri: `:*?"<>|`. Verificare che le cartelle UNIX reindirizzate non contengano file con nomi composti da tali caratteri.

Per consentire agli utenti di accedere ai dispositivi USB connessi a una DTU Sun Ray dalle rispettive sessioni Windows, vedere About USB Device Redirection.

Troubleshooting Windows Session Connection

Problem: Unexpected Time Zone Value

`uttsc` only considers time zones listed in `/usr/share/lib/zoneinfo/tab/zone_sun.tab` (for Solaris) and `/usr/share/zoneinfo/zone.tab` (for Linux), as valid zones that can be converted into the equivalent time zones in the Windows session. If the time zone is set to a value other than those defined in these files, then the time zone value in the Windows session can be unexpected.

Connection Error Messages

Message	Comments
Error (%d): Unable to establish data store connection.	The Sun Ray Windows Connector was unable to open a connection to the Sun Ray data store. Ensure that the SRDS has been configured for Sun Ray software and is reachable. Also, ensure that the Sun Ray Windows Connector has been successfully configured before launching it.
Error(%d): Unable to determine SRSS version.	SRWC could not determine SRSS version information. Ensure that SRSS 4.2 or above is installed and configured successfully.
Error(%d): Unable to launch Sun Ray Connector. Only SRSS 4.2 and above are supported.	SRWC 2.2 is supported only on SRSS 4.2 and above. Ensure that the correct version of SRSS is installed.
Sun Ray session is not connected, please try again.	Ensure that SRWC is being launched from a valid connected Sun Ray session.
Cannot obtain DTU MAC address.	SRWC was unable to contact the Sun Ray Authentication Manager to retrieve the DTUs MAC address. Ensure that this daemon is reachable.

Error: Sun Ray Token ID cannot be determined. Sun Ray Connector can only be launched from a Sun Ray session.	SRWC was launched from a non-Sun Ray session (for example, telnet or console). It can only be launched from a connected DTU session.
Unable to create new audio device. Using default audio device.	`utaudio` failed to create a new audio device. Check the messages logged by `utaudio` for more information. SRWC will try to use the default audio device for the session.
Device <device_name> is not allocated. Audio will not work in this session. Continuing..	On Solaris Trusted Extensions platforms, if the default audio device is not allocated, then SRWC will not be able to use any new audio device or the default audio device. In this case, the SRWC session will proceed but without audio support.
Warning. Printer preferences will not be stored. Please run `uttscadm` to complete configuration before launching Sun Ray Connector.	If `uttscadm` has not been run before the Sun Ray Windows Connector is launched, the printer preferences as sent by the Windows system will not be stored and hence cannot later be reused. This error is not fatal. The session will continue to be launched.
Unable to connect to Sun Ray Connector Proxy. Please ensure `uttscadm` has been run before launching the Sun Ray Connector.	Make sure the proxy daemon (`uttscpd`) is up and running. If the Sun Ray Windows Connector is launched before `uttscadm` has been run to configure it, then the Sun Ray Windows Connector Proxy is not reachable. This message occurs only on Solaris systems.
Unable to launch Sun Ray Connector. Please ensure `utconfig` has been run before launching the Sun Ray Connector.	If Sun Ray Windows Connector is launched without having configured Sun Ray data store using `utconfig` (from Sun Ray Server Software), then the connector cannot be used.

Glossary

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

If you would like to add a term to the list, use the Add Comment link at the bottom of the page.

A

Term	Description
AAC	Advanced Audio Coding, a "lossy" compression format capable of delivering relatively high quality at relatively low bit rates.
alias token	An alias token that enables a card owner to access the same Sun Ray session with more than one physical token. This token can be useful when a user needs a duplicate smart card.
ALP	The Sun Appliance Link Protocol, a suite of network protocols that enable communication between Sun Ray servers and DTUs.
AMGH	Automatic Multigroup Hotdesking. See regional hotdesking.
AH	Authentication headers used as part of an IPSec implementation.
authentication policy	The Authentication Manager uses the selected authentication module to determine what tokens are valid and which users, as token owners, have access to the system and sessions.
authentication token	Although all tokens are used by the Authentication Manager to grant or deny access to Sun Ray sessions, this term usually refers to a user's smart card token. See token.

B

Term	Description
backplane bandwidth	Sometimes also referred to as "switch fabric." A switch's backplane is the pipe through which data flows from an input port to an output port. Backplane bandwidth usually refers to the aggregate bandwidth available among all ports within a switch.

barrier mechanism	To prevent clients from downloading firmware that is older than the firmware that is already installed, the administrator can set a barrier mechanism. The barrier mechanism symbol BarrierLevel is defined by default in the DHCP table of Sun Ray servers running version 2.0 or later of Sun Ray Server Software.
bpp	Bits per pixel.

C

Term	Description
CABAC	Context-adaptive binary arithmetic coding, a "lossless" entropy coding technique used in H.264/MPEG-4 AVC video encoding.
CAM	Controlled Access Mode, also known as kiosk mode. As of SRSS 4.0, the CAM module was replaced by a rewritten Kiosk module.
card reader	See token reader.
category 5	The most common type of wiring used in LANs. It is approved for both voice and data at up to 100 Mhz. Also called "cat 5."
client-server	A common way to describe network services and the user processes (programs) of those services.
codec	A device or program capable of encoding or decoding a digital data stream or signal.
cold restart	Pressing the Cold Restart button terminates all sessions on a given server before restarting Sun Ray services. See restart.
cut-through switch	The switch begins forwarding the incoming frame onto the outbound port as soon as it reads the MAC address while continuing to receive the remainder of the frame.

D

Term	Description
DHCP	Dynamic Host Configuration Protocol, a means of distributing IP addresses and initial parameters to the DTUs.
domain	A set of one or more system boards that acts as a separate system capable of booting the OS and running independently of any other board.
DTU	Desktop Terminal Units, the original name of Sun Ray desktop units. These units are also referred to as Sun Ray thin clients, Sun Ray ultra-thin clients, and Sun Ray virtual display terminals.

E

Term	Description
ESP	Encapsulating Security Payloads, used as part of IPSec.
Ethernet	Physical and link-level communications mechanism defined by the IEEE 802.3 family of standards.
Ethernet address	The unique hardware address assigned to a computer system or interface board when it is manufactured. See MAC address.
Ethernet switch	A unit that redirects packets from input ports to output ports. It can be a component of the Sun Ray interconnect fabric.

F

Term	Description
failover	The process of transferring processes from a failed server to a functional server.
failover group	Two or more Sun Ray servers configured to provide continuity of service in the event of a network or system failure. Sometimes abbreviated as FOG or HA (for high availability). The term high availability refers to the benefit of this type of configuration; the term failover group refers to the functionality.

filling station	Any private network configured for Sun Ray services or any shared network in which the Sun Ray DHCP server is the only DHCP server. When a DTU's firmware is downgraded to an earlier version because it connects to a server running the earlier version, it needs to be connected to a filling station so that it can download newer firmware.
firmware barrier	See barrier mechanism.
FOG	See failover group.
fps	Frames per second.
frame buffer	Video output device that drives the video display. See virtual frame buffer.

G

Term	Description
GEM	Gigabit Ethernet.
group-wide	Across a failover group.

H

Term	Description
H.264	A standard for video compression developed by MPEG and VCEG for a wide range of bit rates and resolutions. Also known as MPEG-4 AVC (Advanced Video Coding) and MPEG-4 Part 10.
HA	High availability. Sun Ray HA groups have traditionally been called failover groups.
head	Colloquial term for a screen, or display, or monitor, especially in a context where more than one is used in conjunction with the same keyboard and mouse, as in "multihead" feature.
high availability	See failover. The term high availability refers to a benefit of this type of configuration. The term failover group refers to the functionality.
hotdesking	The ability for a user to remove a smart card, insert it into any other DTU within a server group, and have the user's session available for instantaneous access to the user's windowing environment and current applications from multiple DTUs.
hot key	A predefined keyboard shortcut used to trigger certain activities either on the DTU or within the Sun Ray session running on the Sun Ray server. A hot key is used to bring up the Settings screen on the Sun Ray DTU.
hot-pluggable	A property of a hardware component that can be inserted into or removed from a system that is powered on. USB devices connected to Sun Ray DTUs are hot-pluggable.

I

Term	Description
idle session	A session that is running on a Sun Ray server but to which no user (identified by a smart card token or a pseudo-token) is logged in.
IKE	Internet Key Exchange, a component of IPSec.
interconnect fabric	All the cabling and switches that connect a Sun Ray server's network interface cards to the Sun Ray DTUs.
intranet	A private network that uses internet protocols and is confined to an organization.
IP address	A unique number that identifies each host or other hardware system on a network. An IP address is composed of four integers separated by periods. Each decimal integer must be in the range 0-255 (for example, 129.144.0.0).

IP address lease	The assignment of an IP address to a computer system for a specified length of time, rather than permanently. IP address leasing is managed by the Dynamic Host Configuration Protocol (DHCP). The IP addresses of Sun Ray DTUs are leased.
IPSec	The Internet Protocol (Security) set of protocols seeks to secure IP communications by encoding data packets through authentication headers (AH) and encapsulating security payloads (ESP) and by providing a key exchange mechanism (IKE).

K

Term	Description
kiosk mode	A facility to run sessions under an anonymous user account without a UNIX login. Kiosk sessions provide a preconfigured, usually restricted, software environment. The term kiosk mode was used interchangeably with CAM in earlier versions of SRSS. As of SRSS 4.0, this module was completely rewritten and is now officially called kiosk mode.

L

Term	Description
LAN	Local Area Network. A group of computer systems in close proximity that can communicate with one another through connecting hardware and software.
layer 2	The data link layer. The OSI (Open Standards Interconnection) model contains seven layers. Layer 2 is concerned with procedures and protocols for operating the communication lines between networks as well as clients and servers. Layer 2 also has the ability to detect and correct message errors.
local host	The CPU or computer on which a software application is running.
local server	From the DTU's perspective, the most immediate server in the LAN.

M

Term	Description
MAC address	Media Access Control. A MAC address is a 48-bit number programmed into each local area network interface card (NIC) at the time of manufacture. LAN packets contain destination and source MAC names and can be used by bridges to filter, process, and forward packets. 8:0:20:9e:51:cf is an example of a MAC address. See also Ethernet address
managed object	An object monitored by the Sun Management Center software.
mobile token	If mobile sessions are enabled, this pseudo-token enables a user to log in to an existing session from different locations without a smart card, in which case the user name is associated with the session. This type of pseudo-token is called a mobile token.
mobility	For the purposes of the Sun Ray Server Software, the property of a session that enables it to follow a user from one DTU to another within a server group. On the Sun Ray system, mobility requires the use of a smart card or other identifying mechanism.
modules	Authentication modules are used to implement various site-selectable authentication policies.
MPPC	Microsoft Point-to-Point Compression protocol.
MTU	Maximum Transmission Unit, used to specify the number of bytes in the largest packet a network can transmit.
multicasting	The process of enabling communication between Sun Ray servers over their Sun Ray network interfaces in a failover environment.
multihead	See head.
multiplexing	The process of transmitting multiple channels across one communications circuit.

N

Term	Description
NAT	See network address translation.
namespace	A set of names in which a specified ID must be unique.
network address	The IP address used to specify a network.
network address translation	Network address translation (NAT) typically involves the mapping of port numbers to allow multiple machines (Sun Ray DTUs, but not Sun Ray servers) to share a single IP address.
network interface	An access point to a computer system on a network. Each interface is associated with a physical device. However, a physical device can have multiple network interfaces.
network interface card	Abbreviated as NIC. The hardware that links a workstation or server to a network device.
network latency	The time delay associated with moving information through a network. Interactive applications such as voice, video displays, and multimedia applications are sensitive to these delays.
network mask	A number used by software to separate the local subnet address from the rest of a given Internet protocol address. An example of a network mask for a class C network is `255.255.255.0`.
network protocol stack	A network suite of protocols, organized in a hierarchy of layers called a stack. TCP/IP is an example of a Sun Ray protocol stack.
NIC	Network interface card.
non-smart card mobility	A mobile session on a Sun Ray DTU that does not rely on a smart card. NSCM requires a policy that allows pseudo-tokens.
NSCM	See non-smart card mobility.

O

Term	Description
OSD	On-screen display. The Sun Ray DTU uses OSD icons to alert the user of potential start-up or connectivity problems.

P

Term	Description
PAM	Pluggable Authentication Module. A set of dynamically loadable objects that gives system administrators the flexibility of choosing among available user authentication services.
PAM session	A single PAM handle and runtime state associated with all PAM items, data, and the like.
patch	A collection of files and directories that replace or update existing files and directories that prevent proper execution of the software on a computer system. The patch software is derived from a specified package format and can be installed only if the package it fixes is already present.
PCM	Pulse Code Modulation.
policy	See authentication policy.
Pop-up GUI	A mechanism that enables configuration parameters for a Sun Ray DTU to be entered from the attached keyboard.
port	(1) A location for passing data in and out of a computer system. (2) The abstraction used by Internet transport protocols to distinguish among multiple simultaneous connections to a single destination host.
POST	Power-on self test.
power cycling	Using the power cord to restart a DTU.

pseudo-session	A Sun Ray session associated with a pseudo-token rather than a smart card token.
pseudo-token	A user accessing a Sun Ray session without a smart card is identified by the DTU's built-in type and MAC address, known as a pseudo-token. See token.

R

Term	Description
RDP	Microsoft Remote Desktop Protocol.
regional hotdesking	Originally known as Automatic Multigroup Hotdesking (AMGH), this SRSS feature enables users to access their sessions across wider domains and greater physical distances than was possible in earlier versions of SRSS. Administrators enable this feature by defining how user sessions are mapped to an expanded list of servers in multiple failover groups.
RDS	Remote Desktop Services. Formally known as Terminal Services. See Windows Terminal Services.
RHA	Remote Hotdesk Authentication, a security enhancement that requires SRSS authentication before users can reconnect to an existing session. RHA does not apply to Kiosk sessions, which are designed for anonymous access without authentication. RHA policy can be administered either through a GUI option or with the `utpolicy` command.
restart	Sun Ray services can be restarted either from the `utrestart` command or with the Warm Restart or Cold Restart options through the GUI. A a cold restart terminates all Sun Ray sessions; a warm restart does not.

S

screen flipping	The ability on a Sun Ray DTU with a single head to pan to individual screens that were originally created by a multihead group.
server	A computer system that supplies computing services or resources to one or more clients.
service	For the purposes of the Sun Ray Server Software, any application that can directly connect to the Sun Ray DTU. It can include audio, video, Xservers, access to other machines, and device control of the DTU.
session	A group of services associated with an authentication token. A session may be associated with a token embedded on a smart card. See token.
session mobility	The ability for a session to "follow" a user's login ID or a token embedded on a smart card.
smart card	Generically, a plastic card containing a microprocessor capable of making calculations. Smart cards that can be used to initiate or connect to Sun Ray sessions contain identifiers such as the card type and ID. Smart card tokens may also be registered in the Sun Ray Data Store, either by the Sun Ray administrator or, if the administrator chooses, by the user.
smart card token	An authentication token contained on a smart card. See token.
SNMP	Simple Network Management Protocol
spanning tree	An intelligent algorithm that enables bridges to map a redundant topology and eliminates packet looping in Local Area Networks (LANs).
store-and-forward switches	The switch reads and stores the entire incoming frame in a buffer, checks it for errors, reads and looks up the MAC addresses, and then forwards the complete good frame out onto the outbound port.
subnet	A working scheme that divides a single logical network into smaller physical networks to simplify routing.
system	The Sun Ray system consists of Sun Ray DTUs, servers, server software and the physical networks that connect them.

T

TCP/IP	Transmission Control Protocol/Internet Protocol (TCP/IP) is a networking protocol that provides communication across interconnected networks between computers with diverse hardware architectures and operating systems.
thin client	Thin clients remotely access some resources of a computer server, such as compute power and large memory capacity. The Sun Ray DTUs rely on the server for all computing power and storage.

tick	The time interval since a specific network event. It is defined as 1/100th of a second, which is the usual SNMP convention.
timeout value	The maximum allowed time interval between communications from a DTU to the Authentication Manager.
token	The Sun Ray system requires each user to present a token, which the Authentication Manager uses to allow or deny access to the system and to sessions. A token consists of a type and an ID. If the user uses a smart card, the smart card's type and ID are used as the token. If the user is not using a smart card, the DTU's built-in type and ID (the unit's Ethernet, or MAC, address) are used instead as a pseudo-token. If mobile sessions are enabled, a user can log in to an existing session from different locations without a smart card, in which case the user name is associated with the session. A pseudo-token used for mobile sessions is called a mobile token. Alias tokens can also be created to enable users to access the same session with more than one physical token.
token reader	A Sun Ray DTU that is dedicated to reading smart cards and returning their identifiers, which can be associate with card owners (users).
trusted server	Servers in the same failover group that "trust" one another.

U

URI	Uniform Resource Identifier, the generic term for all types of names and addresses that refer to objects on the World Wide Web.
user session	A session that is running on a Sun Ray server and to which a user (identified by a smart card token or a pseudotoken) is logged in.

V

VC-1	Informal name of the SMPTE 421M video codec standard, now a supported standard for Blu-ray Discs and Windows Media Video 9.
virtual desktop	A virtual machine containing a desktop instance that is executed and managed within the virtual desktop infrastructure, usually a Windows XP or Vista desktop accessed through RDP.
virtual frame buffer	A region of memory on the Sun Ray server that contains the current state of a user's display.

W

Term	Description
warm restart	See restart.
WMA	Windows Media Audio data compression file format and codec developed by Microsoft.
work group	A collection of associated users who exist in near proximity to one another. A set of Sun Ray DTUs that are connected to a Sun Ray server provides computing services to a work group.
Windows system	Throughout the SRWC documentation, "Windows system" indicates a Windows OS that can be accessed from a Sun Ray DTU using SRWC. A Windows Terminal Server is one example of a Windows system.
Windows Terminal Server	A server running Windows Server software with Windows Terminal Services enabled.
Windows Terminal Service	A Microsoft Windows component that makes Windows applications and desktops accessible to remote users and clients. Depending on the Windows release, this feature may be called Terminal Services, Remote Desktop Services, or Remote Desktop Connection.

X

Term	Description
Xnewt	The new default Xserver for Sun Ray Server Software 4.1 and later on Solaris.
Xserver	A process which controls a bitmap display device in an X window system. It performs operations on request from client applications. Sun Ray Server Software contains two Xservers: Xsun, which was the default Xserver in previous versions of SRSS, and Xnewt, which is the default Xserver for SRSS 4.1 and later. Xnewt enables the latest multimedia capabilities.

Y

Term	Description
YUV	Simple, lossless mechanism to store images or a sequence of images.