TECHNICAL PAPER

NETOP[™] RemoteControl Secure Remote Management and Support

Smartcard Integration



Netop develops and sells software solutions that enable swift, secure and seamless transfer of video, screens, sounds and data between two or more computers over the Internet. For more information, see <u>www.netop.com</u>.

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Introduction

This document presents how to configure Netop Remote Control to use smartcard authentication, either by working with Netop Security Server or directly on the Netop Host.

Prerequisites:

- 1 Domain Controller (DC) server.
- Netop Remote Control components installed: Guest, Host or Netop Security Server (NSS)
- Smartcard drivers installed on the Netop Guest.

2. Authenticate to the Host using smart card

A smart card can be used to authenticate a Guest user in two ways:

- Configuration on the Host
 - Authenticate using Active Directory binding (Windows Security Management from Guest Access Method).
 - Authenticate using Directory Services (Directory services option from Guest Access Method)
- Configuration on NSS.
 - Authenticate using Active Directory binding (Windows Security Management from Guest Access Method).
 - Authenticate using Directory Services (Directory services option from Guest Access Method)

2.1. Configuration on the Host

2.1.1. Authenticate using Active Directory binding

NOTE: In order for this authentication to work, smartcard drivers installed on the Netop Guest should be installed on the Netop Host.



In order to authenticate on remote systems using the smart card reader via Active Directory binding:

 On the Host machine go to Tools > Guest Access Security and from the Guest Access Method drop-down list select the Grant each Guest individual access privileges using Windows Security Management.

Guest Access Privileges Guest Policy MAC/IP Address List Setup Encryption Smart Card					
Guest Access Method					
Grant each Guest individual acc	cess privileges using Wind	dows	s Security Management	•	
2					
Individual Guests access privilege	es assigned				
Full access			🗑 Allow guest to:	•	
Ciew only			Remote control		
Inventory only			Use keyboard and mouse		
Remote Management only			Lock keyboard and mouse		
			Blank the screen		
			Transfer clipboard		
			 Execute command (Restart,) 		
		Request chat			
			Request audio chat and transfer sound		
			Request Video		
			Send files to host		
			Receive files from host		
			Run programs		
			Redirect print		
			Remote Manage		
			Retrieve Inventory		
		1	Send Message		
Add security role	Add Group		Demonstrate		
		1	 Join multi Guest session 		
Delete	Add User		Act as multi Guest session Administrator	•	

2. On the **Smart Card** tab in the Windows Security Management section, make sure to select the **Always log on with Smart Card** option.

Guest Access Security
Guest Access Privileges Guest Policy MAC/IP Address List Setup Encryption Smart Card
Windows Security Management
To use Smart Card for authentication with Windows Security Management select appropriate option below and select Windows Security Management on the Guest Access Privileges tab.
C Never log on with Smart Card
Always log on with Smart Card
C Allow both logon with Smart Card and Credentials (name, password and domain)
Directory Services
To use Smart Card for authentication with Directory Services select appropriate option below and select Directory Services authentication on the Guest Access Privileges tab.
Rever log on with Smart Card
C Always log on with Smart Card
C Allow both logon with Smart Card and Credentials (name, password and server)
Certificate Field identifying the user logging on:
C Subject Field
Subject Alternative Name Field (must be a User Principal Name (UPN)).
The Certificate Field matches this Directory Services Attribute:
distinguishedName
Leave blank to match a User object's distinguished name.
OK Cancel Help

2.1.2. Authenticate using Directory Services

NOTE: In order for this authentication to work, smartcard drivers installed on the Netop Guest should also be installed on the Netop Host.

In order to authenticate on remote systems using the smart card reader via LDAP authentication:

 On the Host machine go to Tools > Guest Access Security and from the Guest Access Method drop-down list select the Grant each Guest individual access privileges using Directory Services.

Guest Access Security	×						
Guest Access Privileges Guest Policy MAC/IP Address List Setup Encryption Smart Card							
Guest Access Method Grant each Guest individual access privileges using Directory services							
Ľ							
Individual Guest access privileges using Dire	ctory services						
 Full access Pieve only Inventory only Remote Management only 	Idow guest to:						
Add security role Add	Group Send Message						
<u>D</u> elete <u>A</u> do	User V Join multi Guest session V Act as multi Guest session Administrator V						
	OK Cancel Help						

2. On the **Smart Card** tab in the Directory Services section, make sure to select the **Always log on with Smart Card** option.

Guest Access Security
Guest Access Privileges Guest Policy MAC/IP Address List Setup Encryption Smart Card
Windows Security Management To use Smart Card for authentication with Windows Security Management select appropriate option below and select Windows Security Management on the Guest Access Privileges tab.
Never log on with Smart Card Annueles as with Smart Card
C Allow both logon with Smart Card and Credentials (name, password and domain)
Directory Services To use Smart Card for authentication with Directory Services select appropriate option below and select Directory Services authentication on the Guest Access Privileges tab.
C Never log on with Smart Card
C Allow both logon with Smart Card and Credentials (name, password and server)
Certificate Field identifying the user logging on:
Subject Field Subject Alternative Name Field (must be a User Principal Name (UPN)).
The Certificate Field matches this Directory Services Attribute:
distinguishedName
Leave blank to match a User object's distinguished name.
OK Cancel Help

Select the Certificate field identifying the user logging on:

- **Subject Field**. Retrieve the user identification from the Subject field of the Smart Card certificate.
- **Subject Alternative Name Field**. Retrieve the user identification from the Subject Alternative Name field of the Smart Card certificate.

Specify the directory services attribute compatible with the Smart Card certificate field contents (**The Certificate Field matches this Directory Services Attribute** field). This is necessary only if different from a user object distinguished name.

For Directory Services Smart Card logon to succeed, the Host must be able to resolve the Smart Card certificate user identification into a Directory Services user identification. If the Smart Card certificate user identification and Directory Services user identifications are incompatible, Smart Card logon will fail.

To find available Smart Card certificate user identifications insert the Smart Card and in Internet Explorer click the **Internet Options** command on the **Tools** menu to display the **Internet Options** dialog box.

On the Content tab, click Certificates to display the Certificates dialog box.

On the **Personal** tab, double-click the appropriate certificate record to display the Certificate dialog box. The **Details** tab displays the contents of available certificate fields including **Subject** and **Subject Alternative Name**.

If you need to authenticate with a custom attribute from the Subject field instead of using the whole content of the field, follow the steps provided in this <u>technical article</u>.





2.2.1. Authenticate using Active Directory binding

In order to authenticate on remote systems using the smart card reader via Active Directory authentication:

 On the Host machine go to Tools > Guest Access Security and from the Guest Access Method drop-down list select the Use Netop Security Server option and configure the Host to work with NSS.

uest Access Security	×
Guest Access Privileges Guest Policy MAC/IP Address List Setup Encryption Smart Card	
Guest Access Method	
Use Netop Security Server	•
Netop Security Server	
Public Key:	
BEGIN PUBLIC KEY	<u>^</u>
END PUBLIC KEY	
	<u>_</u>
OK Cance	Help

1. On the NSS machine, in the Security Manager, under **Security Policy - Preferred Guest Type** select the **Guests enter Windows username and password** security mode.

Netop Security Manager - Logged on	to ODBC data source "NetOp_Security_	Evaluation*
👔 💏 🛤 🧖 🕷 🛞 🔛 🕷	≗a 12- 88 (IIII)	
Where UKE	A% A% A% A%	Netop Security Manager
Becurity Settings Becurity Settings Becurity Settings Becurity Policies Security Policies	Security Server Public Key Security Server Group Name (back Security Server Group List	Preferred Guest Type Smart Card
Logging Security Log Netop Log Active Sessions	Preferred Guest Type Preferred Host Type Clean up log entries older than Clean up active session entries old	Please select your preferred security mode:
Scheduling Scheduled Jobs Motop Definitions Guest IDs	🖪 Run scheduler	Guests enter Netop Guest ID and password Guests enter RSA SecuriD usemane and passcode
 Groups Host ID Groups Host ID Groups Netop Properties 		Guests enter Directory Services usemame and password
		Some Hosts are not able to handle Windows users. These hosts will always ask the Guest to prompt the Netop way.
UPDATE DWROLE SET DEMO = 1 SQL Executed Ok	WHERE ID = 2	OK Cancel Apply
A Death		

2. Click the **Smart Card** tab and under the Windows Security Management section make sure to select the **Always log on with Smart Card** option.



2.2.2. Authenticate using Directory Services

In order to authenticate on remote systems using the smart card reader through NSS via LDAP authentication:

1. On the Host machine go to **Tools** > **Guest Access Security** and from the Guest Access Method drop-down list select the **Use Netop Security Server** option.

Guest Access Privileges Guest Policy MAC/IP Address List Setup Encryption Smart Card Guest Access Method Use Netop Security Server Public Key: BEGIN PUBLIC KEY V
Guest Access Method Use Netop Security Server Public Key: BEGIN PUBLIC KEY END PUBLIC KEY
Use Netop Security Server Public Key: BEGIN PUBLIC KEY END PUBLIC KEY
Netop Security Server Public Key: BEGIN PUBLIC KEY END PUBLIC KEY
Netop Security Server Public Key: BEGIN PUBLIC KEY END PUBLIC KEY
Public Key:
BEGIN PUBLIC KEY
END PUBLIC KEY
END PUBLIC KEY
END PUBLIC KEY
END PUBLIC KEY
OK Cancel Help

2. On the NSS machine, In the Security Manager, under **Security Policy - Preferred Guest Type** on the **Smart Card** tab, under the Directory Services section make sure to select the **Always log on with Smart Card** option.



3. On the **Smart Card** tab in the Directory Services section, make sure to select the **Always log on with Smart Card** option. For details on how to select the Certificate field identifying the user logging on, see <u>Select the Certificate field identifying the user logging on</u>

2.3. How it works

To connect from a Guest to a Host via Smart Card authentication:

- 1. Connect the smart card reader to the Guest PC:
- 2. Open the Guest and go to **Tools > Program options > Smart card** and select the smart card reader from the drop down menu

rogram Options				×
Remote Control	Clipboard	Monitor	Audio-Vid	eo Chat
Remote Printing	Recording	Sounds H	elp Request	Run
Layout General	Cache Logor	n Host Nam	e Directory	Services
Encryption Invent	ory Smart Card	Intel vPro	Skins We	b Update
-Smart Card Read	ler			
Select Smart Ca	ard Reader:			
SCM Microsyste	ems Inc. SCR33x	USB Smart	•	
-Remote Smart C	ard Logon			
Support Rem	ote Smart Card	Logon		

3. Connect to the Host.

t Neto	p Guest 💦 🗕 🗖 🗙
File Connection Edit View Iools Help 것같은 한국 관련 및 관계 등 정상 책 등 1 2 위 위 대 고리대 다.	2
History V Help Request Recording Host Name:	s V Sorbet inventory Communication profile TCP/IP ~ Edit New Delete
Connect Prowse Browse Browse Browse Bt (rested 9:45:58 PM) Host ID User Name Phone number Communication Profile	Information
NSSE TCP/IP NSS DB TCP/IP O DESKTOP JOHN TCP/IP NETOPGUEST TCP/IP	
Netop Network / Windows Network / Intel vPro-/	

4. Enter the Smart Card PIN and click **OK**.

Phonebook 🏷 Q	uick Connect 🎄 Connections 🤗 H	listory 🎲 Help Request 🚸 Recordings	😵 Script 🐞 Inventory	
Host			Communication profile	
name:		Enter PIN	TCP/IP	~
		To log in to "Crescendo C700" Enter PDN:	Edt New Delete	
Gonnect	Browse (10-) Disconnect	Minimum PIN length 4 bytes Maximum PIN length 15 bytes		
Host ID	User Name / Phone nur	nbe OK Cancel	Information	
NSSB NSS	DB	TCP/IP TCP/IP		
DESKTOP	JOHN	TCP/IP		
THE RUSS	NET OF GUEST	.079		

The Smart Card identifies the Guest user that logs on and allows remote controlling the Host:



3. Use the smart card on the target device

3.1. Configuration

In order to authenticate on remote systems using the smart card reader, the following option needs to be checked. Once checked the smart card connected to the Guest machine can be used on the Host machine (E.g.: authenticate into Windows on the Host device using a smart card).

NOTE: In order for this authentication to work, smartcard drivers installed on the Netop Guest should be also installed on the Netop Host.

Program Options		X
Remote Control Clipboard Remote Printing Recording	Monitor Audio-V Sounds Help Request	ideo Chat t Run
Layout General Cache Logo Encryption Inventory Smart Can	n Host Name Directo Intel vPro Skins V	vy Services Veb Update
Smart Card Reader Select Smart Card Reader: SCM Microsystems Inc. SCR33:	USB Smart 🔻	
Remote Smart Card Logon	Logon	
ОК	Cancel	Help

3.2. How it works

To authenticate on remote systems using the smart card reader:

- 1. Connect the smart card reader to the Guest PC.
- 2. Open the Guest and go to **Tools > Program options > Smart card** and select the smart card reader from the drop down menu

rogram Options				×	
Remote Control	Clipboard	Monitor	Audio-Vi	deo Chat	
Remote Printing	Recording	Sounds H	Help Request	Run	
Layout General	Cache Logo	n Host Na	me Directo	ry Services	
Encryption Inventory Smart Card Intel vPro Skins Web Update					
-Smart Card Read	ler				
Select Smart Ca	rd Reader:				
SCM Microsyste	ems Inc. SCR33x	USB Smart	•		
Remote Smart Ca	ard Logon				
Support Rem	ote Smart Card	Logon			

3. Connect to the Host.

Phonebook 🎽 🕻	λuick Connect 🎄 Connections 🤗 Η	fistory 🛟 Help Request 🚸 Recording	gs 💞 Script 🚯 Inventory	
osit			Communication profile	
lame:		Y	TCP/IP	~
			Edit New Delete	
Connect	Browse P-+ Disconnect	Connection Properties,		
owse list (created 9	/:45:58 PM)			
Host ID	User Name / Phone nur	mber Communication Profile	Information	
NSS8		TCP/IIP		
Re DESKTOP	XOHN	TCP/IP		
He HOST	NETOPGUEST	TCP/IP		

4. Select to authenticate on the Host using the smart card:

ar antaria kay danasia balahay jamarikan		10.8
	Level a second contact Alternatives Altern	
8	🕵 Windows 7 Professional	,
num 😥 💥 🥝 😨 😓 🧖 💺		en 🗶 🕫 🗟 🗟 🖓 statut

5. Enter the Smart Card PIN and click **OK**.

The Smart Card identifies the Guest user that logs on and allows remote controlling the Host: