

User Guide

Hanwha Techwin Private Root CA Certificate Installation Guide

February 19th 2020





1. Download root CA certificate and check hash value

1) Download Hanwha Techwin private root CA certificate zip file (HTW_RootCA_File.zip) from Hanwha Techwin website.

• Download Path

: <u>Hanwha Techwin Website</u> \rightarrow Data Center \rightarrow Certification \rightarrow "Hanwha Techwin Private Root CA Download" click

				ń	> Data Center > Certil
rtification(8)					
CMMI Level 3 Certificatio	n	Certificate of Hanwha	a S&C	Hanwha Techwin Priva	ate Root CA
CMMI-DEV version 1.3 Maturit	y Level 3	Certificate of Hanwha S& management service to H		Hanwha Techwin Private I	Root CA
View	🕑 Download	© View	🖸 Download	View	🕑 Download
ISO 14001 Certification		ISO 45001 Certificatio	n	RoHS Declaration	
Environmental Management	System	Occupational Health and System	Safety Management	Directive RoHS (Restriction Hazardous Substances in equipment)	
View 🔻 D	ownload 🔻	View -	Download -	View	Γ↓] Download

Please use only the root CA certificate that Hanwha Techwin provides through above download path.

2) Unzip the "HTW_RootCA_File.zip" file.

After unzipping, there will be 2 certificate files and 1 txt file as below.

- HTW_rootca.crt
- HTW_rootca_2.crt
- Read_me.txt

Here you install the certificate with the HTW_rootca.crt and HTW_rootca_2.crt files. <u>The two certificate installation methods are the same.</u>

2. Private root CA certificate installation

1) First, Run the "HTW_rootca.crt" then click "Install Certificate..." in "General" tab.

R Certificate	\times							
General Details Certification Path								
Certificate Information								
This CA Root certificate is not trusted. To enable trust, install this certificate in the Trusted Root Certification Authorities store.								
Issued to: Hanwha Techwin Private Root CA	-							
Issued by: Hanwha Techwin Private Root CA								
Valid from 3/25/2018 to 3/21/2038								
Install Certificate	t							
OK								

2) Click "Next" to start the "Certificate Import Wizard."

3) Select "Place all certificates in the following store" and click on "Browse..."

		×
÷	Certificate Import Wizard	
	Certificate Store	
	Certificate stores are system areas where certificates are kept.	
	Windows can automatically select a certificate store, or you can specify a location for the certificate. Automatically select the certificate store based on the type of certificate Place all certificates in the following store	
	Certificate store:	
	Next Cance	el

4) Select "Trusted Root Certification Authorities" in the "Select Certificate Store" window, then click "OK."

Select Certificate Store	×						
Select the certificate store you want to use.							
Personal	~						
Trusted Root Certification Authorities							
Intermediate Certification Authorities							
	~						
Show physical stores							
OK Cancel							

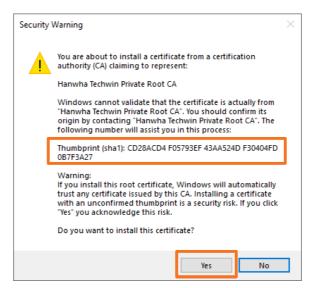
5) Check "Trusted Root Certification Authorities" is indicated in the "Certificate store" field, then click "Next."

		×
~	Certificate Import Wizard	
	Certificate Store	
	Certificate stores are system areas where certificates are kept.	
	Windows can automatically select a certificate store, or you can specify a location for the certificate.	
	\bigcirc Automatically select the certificate store based on the type of certificate	
	Place all certificates in the following store	
	Certificate store:	
	Trusted Root Certification Authorities Browse	
	Next Cano	el

6) Check the "Certificate Store Selected by User" field indicates "Trusted Root Certification Authorities" and the "Content" field indicates "Certificate" and click "Finish."

÷ .	Certificate Import Wizard	×
	Completing the Certificate Import Wizard	
	The certificate will be imported after you click Finish.	
	Certificate Store Selected by User Trusted Root Certification Authorities Content Certificate	
	Finish Cano	:el

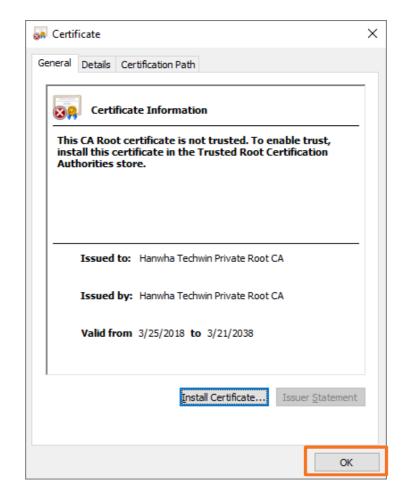
- 7) In the "Security Warning" popup, check the "Thumbprint (sha1)" is indicated as follows:
 - HTW_rootca.crt → Thumbprint (sha1): CD28ACD4 F05793EF 43AA524D F30404FD 0B7F3A27
 - HTW_rootca_2.crt → Thumbprint (sha1): FA47E60B 94968EA1 91BCA8EC 9514AECD B2832545



* The above security warning window does not appear "The import is complete." The message window may appear immediately. Click the "Yes" button.

8) Click "OK" in "The import was successful." message box.

9) Click "OK" in the "Certificate" window to close, then restart web browser.



In case the hash value is different from the above, DO NOT continue with the installation, as the certificate is NOT a root CA certificate issued by Hanwha Techwin. Please download Hanwha Techwin root CA certificate from website then continue installation again.

10) Next, use the HTW_rootca_2.crt file to perform the same procedure from 1) to 9).

3. How to safely connect to the camera using local DNS (for Chrome)

1) Run browser and connect to the camera in https mode.

The local IP address of the camera used in this guide is "192.168.71.141". Access via the IP address that suits your user environment.

2) If "Your connection is not private." Message displayed, ignore the message then click "Process to 192.168.71.141(unsafe)".

0	Priva	cy error		×	+							-	-		×
←	\rightarrow	C 🔺	Not secure	192.1	68.71.141								☆	Θ	:
															•
															- 1
		Your	connect	ion	is not p	priva	ate								
			ers might be t						192.168	8.71.141	l (for ex	ample,			
		passwo	ords, message:	s, or cr	redit cards)	. <u>Learn</u>	n more	2							
		NET::ERI	R_CERT_COMMC	DN_NA	ME_INVALID										
			o improve Chror	me seci	urity by send	ling LIRI	ls of so	me nage		it limita	d system				
		_	rmation, and so			_			-	<u>, mncc</u>	<u>a system</u>				
		Hide	advanced								Back	to safety			
			rver could not	-					-						
			CF9282F.hanv				may b	be cause	ed by a	miscont	iguratio	n or an			
		attacke	er intercepting	your	connection	1.									
		Proceed	to 192.168.71.1	41 (un:	<u>safe)</u>										
															-

3) Click the "Not secure" message in address bar at the top of the browser window then click "Certificate(Invalid)" at the bottom of the "Your connection to this site is not secure" message box.

0	Priva	cy erro	r × +	-		×
←	\rightarrow	С	A Not secure 192.168.71.141	☆	θ	:
			Your connection to this site is not secure You should not enter any sensitive information on this site (for example, passwords or credit cards), because it could be stolen by attackers. Learn more			^
			Certificate (Invalid)			
		Yo	Cookies (0 in use)			
		Atta pas				
			::ERR_CERT_COMMON_NAME_INVALID Help improve Chrome security by sending <u>URLs of some pages you visit, limited system</u> information, and some page content to Google. <u>Privacy policy</u> .			
		F	Hide advanced Back to safety			1
		001	s server could not prove that it is 192.168.71.141 ; its security certificate is from 166CF9282F.hanwha-security.com . This may be caused by a misconfiguration or an acker intercepting your connection.			
		<u>Proc</u>	<u>ceed to 192.168.71.141 (unsafe)</u>			Ţ

4) Click on "Details" tab in the "Certificate" window.

Certificate		×						
Genera Details Ce	rtification Path							
Certifica	te Information							
	is intended for the following purpose(s):							
 Ensures the identity of a remote computer Proves your identity to a remote computer 								
	· ·							
Issued to:	00166CF9282F.hanwha-security.com							
Issued by:	Hanwha Techwin Private Root CA							
Valid from	11/5/2010 to 11/3/2020							
Valid Holi	11/5/2015 10 11/5/2025							
	Issuer Statement							
	OK							
Issued to: Issued by:	00166CF9282F.hanwha-security.com Hanwha Techwin Private Root CA 11/5/2019 to 11/3/2029							

5) Check that the "Show" field indicates "<All>" and click on the "Subject" field. Copy (Ctrl + C) the string that comes after "CN =" indicated in the box below. (The string contains the camera's unique MAC address. So each product is different.)

💼 Certificate		×
General Details Certification Path	1	
Show: <all></all>	~	
Field	Value ^]
Subject	00166CF9282F.hanwha-securi	
🛅 Public key	RSA (2048 Bits)	
Public key parameters	05 00	
Basic Constraints	Subject Type=End Entity, Pat	
Netscape Cert Type	SSL Server Authentication (40)	
🕼 Key Usage	Digital Signature, Non-Repudia	
Subject Alternative Name	DNS Name=00166CF9282F.ha	
Tell-manced Key Lisage	Server Authentication (1.3.6	1
CN = 00166CF9282F.hanwha-sec OU = Seconcy Device O = Hanwha Techwin C = KR	urity.com	
E	dit Properties Copy to File	
	ОК	

- 6) Click on the Windows "Start" button, enter the below string in the "Search programs and files" field, and press Ctrl + Shift + Enter.
 - notepad C:\Windows\system32\drivers\etc\hosts

	=	All	Apps	Documents	Settings	Photos	More \smallsetminus	,	Feedback	
Q	ŵ	Best ma	itch							
			notepad C:\Wind Run comn	ows\system3	2\drivers\e	tc \rightarrow				
(2)								notepad C:\Windows\system32\drivers\e Run command	tc\hosts	
9							C C	Open		
							5	Run as administrator		
							۲ <u>۵</u>	Open file location		
8										
w										
8 <mark>8</mark>	۵ ۲									
		, Р no	tepad C:	\Windows\sys	stem32\driv	/ers\etc\hc	sts			

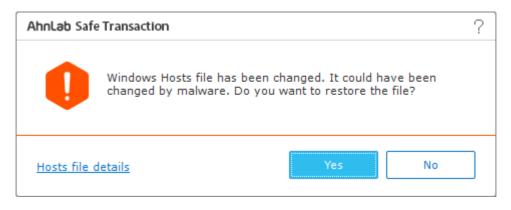
7) In the "hosts – Notepad" window, add a string in the following order into the file.

• [Private IP address of camera] [String copied from the certificate]

The below screenshot is an example of a case that the camera has "192.168.71.141" as IP address and "00166CF9282F.hanwha-security.com" and the string (The string that comes after "CN =" in the "Subject" field of the "Certificate" window).

hosts - Notepad			- 🗆 X
File Edit Format View Help			×
55.200.100.221	stwlic3	stwlic3.stw.net	^
55.200.100.221	stw-super1	stw-super1.stw.net	
55.101.210.38	ssa3srv		
52.231.156.46	netlic1		
55.101.200.45	hpm-lic1		# 정밀기계
55.101.210.33	hps-lic1		# 파워시스템
# HPC			
55.101.210.151	stwlogin1		
55.101.210.153	stweod1		
55.101.210.154	stweod2		
# Teamforge Sett	ing		
55.101.210.64	ctf1	ctf1.stw.net	
192.168.71.141	00166CF9282F	.hanwha-security.com	
			~
<		Windows (CRLF) Ln 139,	Col 1 100%

8) Click "Save" under "File" to save the file and close by selecting "Exit.".

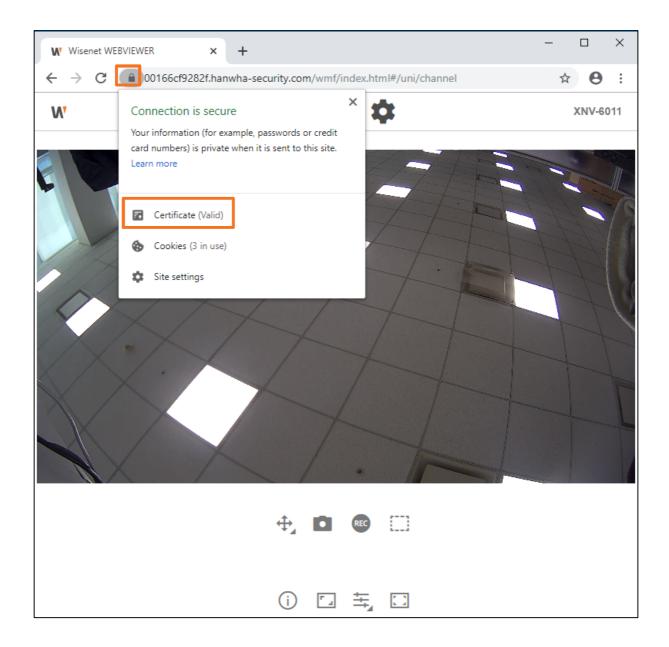


If the Windows Hosts file change detection control alert message pop up, When asked if you want to restore the previous state, select "No".

- In the case of HTW_rootca_2.crt file, the above file change detection control window may not appear. Proceed to next step.
- 9) If accessing the camera via the browser address bar, use the string that comes after the "CN =" registered in the local DNS, not the private IP.
 - https://00166CF9282F.hanwha-security.com (e.g.)

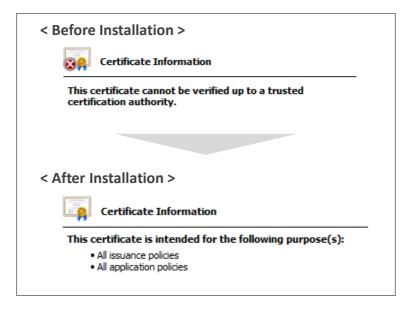
New Tab	× +	- C	נ	×
$\ \ \leftarrow \ \ \rightarrow \ \ G$	W https://00166CF9282F.hanwha-security.com		θ	:

- 10) Once the setup is complete, the background color of the address bar turns white, meaning it is a safe website. You can also click on the lock icon on the right side of the address bar and check the following message to confirm that the installation was successful.
- 11) Click on "Certificate(Valid)" to view the "Certificate Information" of the device, which shows that the certificate of the device has changed into a trusted certificate as follows :



12) Go to the "Certification Path" tab and select "Hanwha Techwin Private Root CA" or "Hanwha Techwin Private Root CA 2" to activate the "View Certificate" button. Click on the button to confirm that the root CA certificate has changed into a trusted certificate.

Certificate	\times	Certificate	×
General Details Certification Path		General Detail: Certification Path	
Certification path		Certification path	
View Certificate		<u>V</u> iew Certificate	!
Certificate status: This certificate is OK.		Certificate status: This certificate is OK.	
ОК		ок	



13) Click "OK" to close the window and finish the installation.

WISENET

Hanwha Techwin Co.,Ltd.

13488 Hanwha Techwin R&D Center, 6 Pangyoro 319-gil, Bundang-gu, Seongnam-si, Gyeonggi-do TEL 070.7147.8771-8 FAX 031.8018.3715 http://hanwha-security.com

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