

Citect SCADA 2018 R2 running as a service with OFS 3.62

Martin Lalanne V1.0 / 15-08-19

AVEVA Group plc High Cross, Madingley Road Cambridge CB3 0HB, UK Tel +44 (0)1223 556655 Fax +44 (0)1223 556666

aveva.com

Table of contents

1. PREREQUISITES	
2. RUNNING AS A SERVICE (RAAS) WITH ENCRYPTION	3
3. CITECT RAAS CONNECTING TO OFS DESKTOP MODE	5
4. CITECT AND OFS BOTH RAAS WITH SAME USER	6

1. Prerequisites

The main prerequisite is to have Citect SCADA 2018 R2 and OFS 3.62 installed on the machine before the following steps. To configure Citect SCADA 2018 R2 in secure mode, it is required to run it as a service. While running Citect SCADA 2018 R2 as a service, two scenarios are possible to establish connection to OPC Factory Server (OFS). This Whitepaper will cover the following two scenarios:

- 1. Citect running as a Service connecting to OFS running in desktop mode
- 2. Citect running as a Service connecting to OFS running as Service

But before let's introduce the Citect SCADA 2018 R2 configuration setup for the Encryption and Service mode.

2. Running as a Service (RaaS) with Encryption

- 1- Setup Citect SCADA 2018 R2 in the Configurator tool. Launch the Configurator.
- 2- Setup the Server Password in the configurator in the Computer Setup section too.
- 3- To run Citect as a Service in Citect SCADA 2018 R2 you need to tick **Run Runtime Manager as a service** option in the Computer Setup section and click **Configure.**

File Help			
Citect SCADA Computer Setup Fncryption Common Platform System Management Serve	Server Authentication Running a server process servers to authenticate a	s requires the configuration of a server password. Setting this password allo and create trust with each other. I Configure Server Password	<u>Hel</u>
	Password Confirm Password	•••••	
	Project Run Path		
	Runtime can run the pro Deployment Server	ject selected in Citect Studio, or the project that has been deployed by the	
		 Run the project selected in Citect Studio. Run the project deployed from the Deployment Server. 	
		C:\ProgramData\AVEVA\Citect SCADA 2018 R2	
	Runtime Manager Configur	ation	
	The Runtime Manager co service, Runtime Manago other settings.	an be configured to run as a service or as a standard process. When run a er allows projects to be deployed to the machine without having to change	s a e any
	-	✓ Run Runtime Manager as a service	
	Configuration Messages		
	Computer setup completed	L.	

Caption – Computer setup setting in Configurator: Run Runtime Manager as a service



- A Configurator - - x Citect SCADA Machines running AVEVA software must be configured to trust each other so that encrypted communications can be utilized. This is done by connecting them to a System Management Computer Setup Encryption ent Serve Common Platform System Management Server Connect to an existing System Management Server. This machine is the System Management Server. There should only be one System Management Server in your topology for all AVEVA products. All other machines should be configured to connect to this System Management Server. No System Management Server configured. (NOT RECOMMENDED) This option also allows you to remove any existing certificates that were managed by the System Management Server. You can connect to an existing System Management Server or configure a new System Management Server by selecting one of the first two options, respectively. When you click Configure, a certificate and the web ports to use for communication are configured. To modify these configurations, click Advanced. Advanced Configuration Messages Updating HTTP Port 80 in the registry. Remove the SSL(HTTPS) with weak wildcard. Checking if binding a site to the SSL(HTTPS) port is allowed. Ensuring the SSL(HTTPS) port has the correct ACL. Updating HTTPS Port 443 in the registry. Configuring the certificate binding. Certificates are configured. All Me
- 4- Configure your System Management Server based on your requirements.

Caption – Configure the System Management Server section

5- Configure the encryption mode in the Encryption section.



Caption – Configure the Encryption in the Configurator



3. Citect RaaS connecting to OFS desktop mode

1- Use the default service settings for Citect Runtime Manager service – Log on as SYSTEM

Citect Runtime Manager Properties (Local Computer)	×
General Log On Recovery Dependencies	
Log on as:	
 Local System account Allow service to interact with desktop 	
O This account:	Browse
Password:	
Confirm password:	
OK Cancel	Apply

Caption – Service settings for Citect Runtime Manager service

- 2- Run a Citect project using OFSOPC driver
- 3- Citect service launches OFS in desktop mode. Please note that OFS is using the current logged in Windows User

	······	нер	- 0.
r r r		2	
Clients Connected	1	_	
Start Date	09-Aug-	2019 16:00:22	
Current Date	09-Aug-	2019 16:07:12	
Number of Groups	5		
Active Groups	5		
Number Of Items	16059		
Active Items	3		
Sync Read	2		
Sync Write	0		
Interfaces	000.1	0000	
Marken - Kanad Carab	UPC VI	0PC V2	
Notifications Sent	0	221	
Asume Regruppite	0		
Async Hequesis	0	0	
Async Write	0	0	
Asunc Befresh	0	0	
Bad Qualities		4	
Total Connections	1		
Total Groups	5	_	
Total Items	16059		
DC Tieles	10000	062550	
Purchase Oracles		6000 C	
Fruncine Quality		70.0	
Private Bytes (MB)		/0.0	
Status	F	Running	
Version	V3.	62. 3302. 0	

Caption – OFS desktop OPC Factory Server window

Citect is now running as a service, but OFS is running as a desktop application in interactive mode. This setup works fine while you stay logged in to Windows. If you logout of Windows then OFS will shutdown and the communication will stop until you login to Windows again. To solve this problem, use both Citect and OFS RaaS.



4. Citect and OFS both RaaS with same user

- 1- Select a local windows or domain user that will be used for COM communication between OFS and Citect when running as a service.
- 2- Setup OFS to run as a service by running "ofsservice.bat" located in C:\Program Files (x86)\Schneider Electric\OFS\Server. This will create a Windows service called OFservice.
- 3- Configure the Log On setting of the OFS Service to "This account" and set it to a domain user or local user

🔍 Services (Local)	Services (Local)			
	OFservice	Name	Description	Status ^
	Stop the service	OFservice		Running
	Restart the service	OFservice Properties (Local Com	nputer)	×
		General Log On Recovery De	ependencies	
		Log on as:		
		Local System account		
		Allow service to interact wi	ith desktop	
		This account: User01	Browse	Running
		Password:		Running
				Running
		Conimi password.		
		0.		
		Q		Running
		9		
		Ö.		
		Q. 1		Running
			OK Cancel Apply	,
		Q		·····

Caption – Service Log On settings for OFS service



4- Setup Automatic startup mode and start OFservice

ieneral	Log On	Recovery	Dependenc	ies		
Service	name:	OFservice				
Display	name:	OFservice				
Descrip	tion:					\sim
Path to C:\Prog	executabl gram Files	le: (x86)\Schnei	ider Electric \(OFS\Server\of	service.exe	
Startup	type:	Automatic	;			\sim
Startup	type:	Automatic				~
Startup Service	type: status: štart	Automatic Running Stop		Pause	Resume	~
Startup Service You car from her	type: status: itart n specify t re.	Automatic Running Stop	meters that a	Pause pply when you	Resume start the service	×
Startup Service You car from her Start pa	type: status: Start n specify t re. arameters:	Automatic Running Stop he start para	meters that a	Pause oply when you	Resume start the servic	×
Startup Service You car from her Start pa	type: status: itart n specify t re. arameters:	Automatic Running Stop	meters that a	Pause pply when you	Resume start the servic	×

Caption - Service settings for OFS service

5- Go to DCOM Config in Component Services and set the Identity of the "Schneider-Aut OPC Factory Server" to "This User" and set it to the same domain user or local user

Component Services			- 🗆 ×
💩 File Action View Window	Help		_ & ×
🗢 🔿 🙍 📰 🗶 🗐 🙆 👔	🖬 凸 凸 鈕 鈕 🏛 🏛		· · · · · · · · · · · · · · · · · · ·
Console Root	Name	Application ID	Actions
✓	Schneider-Aut OPC Factory Server	{E7675090-9FF9-11D1-A	DCOM Config
V 🛃 My Computer	Schneider-Aut OPC Factory Server Propertie	15 ? X	More Actions
> COM+ Applicatio	General Location Security Endpoints Ide	entity	
> CON Config > Running Processe	Which user account do you want to use to rur	n this application?	
> 🛃 Event Viewer (Local)	The interactive user.		
	The launching user.		
	This user.		
	User: User01	Browse	
	Password:		
	Confirm password:		
	The system account (services only).		
	<u></u>		
	· · · · · · · · · · · · · · · · · · ·		
	출 솔		
	Learri more about <u>setting these properties</u> .		
		Canaal	
< >	< OK	Cancel Apply	

Caption – DCOM settings for OFS



6- Configure the Log On setting of the Citect Runtime Manager service to "This account" and set it to the same domain user or local user

Services (Local)	Services (Local)	-		
	Citect Runtime Manager	Name	Description	Status
	Stop the convice	Citect Runtime Manager	Operate Citect	t Runtime in S Running
	Restart the service	Citect Runtime Manager	r Properties (Local Computer)	×
	Description	General Log On Reco	very Dependencies	
	Operate Citect Runtime in Service	Log on as:		Running
		Local System accourt	nt	Running
		Allow service to in	nteract with desktop	Running
		This account:	User01 E	Browse Running
		Password:	•••••	
		Confirm password:	•••••	Running
		0.		Running
		Q.		Running
		Q.		
		Q.		
		Q.		Running
		<u> </u>		

Caption – Service Log On settings for Citect Runtime Manager service

7- Setup Automatic startup mode and start Citect Runtime Manager service

Citect Ru	ntime Ma	anager Prop	erties (Local C	omputer)		×
General	Log On	Recovery	Dependencies			
Service	name:	Citect Runt	ime Manager			
Display	name:	Citect Runt	ime Manager			
Descrip	tion:	Operate Cit	ect Runtime in 3	Service Mod	le	$\hat{\mathbf{v}}$
Path to "C:\Pro	executabl gram Files	e: (x86)\AVEV	A\Citect SCAD/	2018 R2\E	3in∖SE.SCAD/	A.Ru
Startup	type:	Automatic				\sim
Service	status: Start	Running Stop	P	ause	Resume	-
from her	n specify ti re.	ne start para	meters that appl	y when you	start the servic	be
Start pa	arameters:					
			OK	Cance	I Ap	ply

Caption - Service settings for Citect Runtime Manager service

- 8- Reboot the machine for DCOM changes to take effect.
- 9- Citect SCADA and OFS are running as a service





© 2018 AVEVA Group plc and its subsidiaries. All rights reserved.

AVEVA, the AVEVA logos and AVEVA product names are trademarks or registered trademarks of aveva group plc or its subsidiaries in the United Kingdom and other countries. Other brands and products names are the trademarks of their respective companies.

AVEVA Group plc High Cross, Madingley Road Cambridge CB3 0HB, UK Tel +44 (0)1223 556655 Fax +44 (0)1223 556666

aveva.com