

SIEMENS

SIMATIC

S7-300, ET 200S, ET 200pro

Produktinformation SNMP deaktivieren

Produktinformation

Einleitung

Diese Produktinformation enthält wichtige Informationen zu den im Absatz "Geltungsbereich" genannten CPUs. Die Produktinformation ist Bestandteil des gelieferten Produkts. Die in dieser Produktinformation enthaltenen Aussagen sind in Zweifelsfällen als aktueller anzusehen.

Security-Hinweise

Siemens bietet Produkte und Lösungen mit Industrial Security-Funktionen an, die den sicheren Betrieb von Anlagen, Systemen, Maschinen und Netzwerken unterstützen.

Um Anlagen, Systeme, Maschinen und Netzwerke gegen Cyber-Bedrohungen zu sichern, ist es erforderlich, ein ganzheitliches Industrial Security-Konzept zu implementieren (und kontinuierlich aufrechtzuerhalten), das dem aktuellen Stand der Technik entspricht. Die Produkte und Lösungen von Siemens formen einen Bestandteil eines solchen Konzepts.

Die Kunden sind dafür verantwortlich, unbefugten Zugriff auf ihre Anlagen, Systeme, Maschinen und Netzwerke zu verhindern. Diese Systeme, Maschinen und Komponenten sollten nur mit dem Unternehmensnetzwerk oder dem Internet verbunden werden, wenn und soweit dies notwendig ist und nur wenn entsprechende Schutzmaßnahmen (z. B. Firewalls und/oder Netzwerksegmentierung) ergriffen wurden.

Weiterführende Informationen zu möglichen Schutzmaßnahmen im Bereich Industrial Security finden Sie unter (<https://www.siemens.com/industrialsecurity>).

Die Produkte und Lösungen von Siemens werden ständig weiterentwickelt, um sie noch sicherer zu machen. Siemens empfiehlt ausdrücklich, Produkt-Updates anzuwenden, sobald sie zur Verfügung stehen und immer nur die aktuellen Produktversionen zu verwenden. Die Verwendung veralteter oder nicht mehr unterstützter Versionen kann das Risiko von Cyber-Bedrohungen erhöhen.

Um stets über Produkt-Updates informiert zu sein, abonnieren Sie den Siemens Industrial Security RSS Feed unter (<https://www.siemens.com/industrialsecurity>).

Geltungsbereich

Die Aussagen in dieser Produktinformation sind für die nachfolgend aufgezählten (F)-CPUs gültig:

| CPU Bezeichnung | Artikelnummer | Firmware-Version |
|--------------------|---------------------|------------------|
| S7-300 | | |
| CPU314C-2PN/DP | 6ES7314-6EH04-0AB0 | ab V3.3.16 |
| CPU 315-2PN/DP | 6ES7 315-2EH14-0AB0 | ab V3.2.16 |
| CPU 315F-2PN/DP | 6ES7 315-2FJ14-0AB0 | ab V3.2.16 |
| CPU 317-2PN/DP | 6ES7 317-2EK14-0AB0 | ab V3.2.16 |
| CPU 317F-2PN/DP | 6ES7 317-2FK14-0AB0 | ab V3.2.16 |
| CPU 319-3PN/DP | 6ES7 318-3EL01-0AB0 | ab V3.2.16 |
| CPU 319F-3PN/DP | 6ES7 318-3FL01-0AB0 | ab V3.2.16 |
| CPU315T-3PN/DP | 6ES7315-7TJ10-0AB0 | ab V3.2.16 |
| CPU317T-3PN/DP | 6ES7317-7TK10-0AB0 | ab V3.2.16 |
| CPU317TF-3PN/DP | 6ES7317-7UL10-0AB0 | ab V3.2.16 |
| ET 200S | | |
| IM151-8 PN/DP CPU | 6ES7 151-8AB01-0AB0 | ab V3.2.16 |
| IM151-8F PN/DP CPU | 6ES7 151-8FB01-0AB0 | ab V3.2.16 |

| | | |
|---------------------|---------------------|------------|
| ET 200pro | | |
| IM154-8 PN/DP CPU | 6ES7 154-8AB01-0AB0 | ab V3.2.16 |
| IM154-8F PN/DP CPU | 6ES7 154-8FB01-0AB0 | ab V3.2.16 |
| IM154-8FX PN/DP CPU | 6ES7 154-8FX00-0AB0 | ab V3.2.16 |

SNMP deaktivieren/aktivieren

Unter bestimmten Voraussetzungen ist es sinnvoll, SNMP zu deaktivieren. Beispiele:

- Die Sicherheitsrichtlinien in Ihrem Netzwerk lassen den Einsatz von SNMP nicht zu.
- Sie verwenden eine eigene SNMP-Lösung, z. B. über eigene Kommunikationsanweisungen.

Wenn Sie SNMP für ein Gerät deaktivieren, dann stehen Ihnen verschiedene Möglichkeiten zur Diagnose der Netzwerktopologie (z.B. über das PRONETA-Tool oder über den Webserver der CPU) nicht mehr zur Verfügung.

Um SNMP für die integrierten Schnittstellen der CPU zu deaktivieren/aktivieren, gehen Sie folgendermaßen vor:

1. Legen Sie in STEP 7 einen Datenbaustein an, der die Struktur des Datensatzes B071_H enthält.
 - Die folgende Tabelle zeigt die Struktur des Datensatzes B071_H.

| Byte | Element | Kodierung | Erläuterung |
|------|----------------|----------------------------------|--|
| 0-1 | BlockID | F003 _H | Header Die Datensatzlänge wird ab dem Byte 4 "Version" gezählt. |
| 2-3 | BlockLength | 8 | |
| 4 | Version | 01 _H | |
| 5 | Subversion | 00 _H | |
| 6-7 | Reserviert | - | - |
| 8-11 | SNMP-Steuerung | Deaktivieren/Aktivieren von SNMP | Wenn Sie SNMP deaktivieren wollen, dann tragen den Wert 0 ein. (16#0000_0000) Wenn Sie SNMP aktivieren wollen, dann tragen Sie den Wert 1 ein. (16#0000_0001) |

2. Übertragen Sie den Datensatz B071_H im Anlauf-OB (OB100) mit der Anweisung WRREC (Datensatz Schreiben) an die CPU.
Nutzen Sie hierzu die Diagnoseadresse einer integrierten Schnittstelle der CPU.

Beispiel

Aufgabe

Weil die Sicherheitsrichtlinien in Ihrem Netzwerk kein SNMP zulassen, wollen Sie für eine CPU das SNMP deaktivieren.

Lösung

Legen Sie zuerst einen Datenbaustein an, der die Struktur des Datensatzes B071_H enthält. Das folgende Bild zeigt den Datenbaustein "Deactivate SNMP". Der Datenbaustein "Deactivate SNMP" enthält neben dem Datensatz B071_H weitere Variablen, die Sie zum Übertragen des Datensatzes verwenden. Die Variable "snmp_deactivate" dient zum Anstoßen des Auftrags für WRREC.

Tabelle 1 Beispiel: Datenbaustein zum Deaktivieren von SNMP

| Name | Datentyp | Offset | Startwert | Kommentar |
|-----------------|----------|--------|--------------|---------------------------|
| snmp_deactivate | Bool | 0.0 | true | Variable zum Deaktivieren |
| snmp_record | Struct | - | - | Datensatz 16#B071 |
| BlockID | Word | 2.0 | 16#F003 | - |
| BlockLength | Word | 4.0 | 16#0008 | - |
| Version | Byte | 6.0 | 16#01 | - |
| Subversion | Byte | 7.0 | 16#00 | - |
| Reserved | Word | 8.0 | 16#0000 | - |
| SNMP_control | DWord | 10.0 | 16#0000_0000 | - |
| snmp_done | Bool | 14.0 | false | - |
| snmp_error | Bool | 14.1 | false | - |
| snmp_status | DWord | 16.0 | 16#0000_0000 | - |

Übertragen Sie den Datensatz B071_H im Anlauf-OB (OB100) mit der Anweisung WRREC (Datensatz Schreiben) an die CPU.

Im folgenden Programmcode wird der Datensatz B071_H mit der Anweisung WRREC in einer REPEAT UNTIL Schleife übertragen.

```
...
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate, //Transfer data record
ID := 2046, //integrated profinet interface
INDEX := -20367, //Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record); //Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
...
```

Programmcode verwenden

Den vollständigen Programmcode finden Sie unten.

Um den Programmcode in Ihr Projekt zu übernehmen, gehen Sie folgendermaßen vor:

1. Kopieren Sie den gesamten Programmcode in die Zwischenablage mit Strg+A, Strg+C.
2. Öffnen Sie einen Texteditor (z. B. "Editor").
3. Fügen Sie den Inhalt der Zwischenablage in den Texteditor ein mit Strg+V.
4. Speichern Sie das Dokument als scl-Datei ab, z. B. SNMP_DEACT.scl.
5. Öffnen Sie Ihr Projekt in STEP 7.
6. Importieren Sie scl-Datei als externe Quelle.
Weitere Informationen zum Importieren von externen Quellen finden Sie in der Onlinehilfe von STEP 7.
7. Erzeugen Sie den Anlauf-OB und die Datenbausteine. (Rechtsklick auf scl-Datei, Kontextmenü: "Baustein aus Quelle generieren")

SNMP wieder aktivieren

Mit kleinen Änderungen können Sie den Programmcode zum Aktivieren von SNMP verwenden.

Weisen Sie im Anwenderprogramm der Variablen "Deactivate SNMP".snmp_record.SNMPControl den Wert "1" zu:

```
"Deactivate SNMP".snmp_record.SNMP_control := 1;
```

Im nächsten Anlauf der CPU wird SNMP wieder aktiviert.

Vollständiger Programmcode

```
DATA_BLOCK "WRREC_DB_1"  
{InstructionName := 'WRREC';  
LibVersion := '1.1';  
S7_Optimized_Access := 'FALSE' }  
AUTHOR : SIMATIC  
FAMILY : DP  
NAME : WRREC  
VERSION : 1.0  
WRREC  
BEGIN  
END_DATA_BLOCK  
DATA_BLOCK "Deactivate SNMP"  
{ S7_Optimized_Access := 'FALSE' }  
VERSION : 0.1  
STRUCT  
snmp_deactivate : Bool;  
snmp_record : Struct  
BlockID : Word;  
BlockLenght : Word;  
"Version" : Byte;  
Subversion : Byte;  
Reserved : Word;  
SNMP_control : DWord;  
END_STRUCT;  
snmp_done : Bool;  
snmp_error : Bool;  
snmp_status : DWord;  
END_STRUCT;
```

```

BEGIN
snmp_record.BlockID := 16#F003;
snmp_record.BlockLenght := 16#0008;
snmp_record."Version" := 16#0001;
END_DATA_BLOCK
ORGANIZATION_BLOCK "COMPLETE RESTART"
TITLE = "Complete Restart"
{ S7_Optimized_Access := 'FALSE' }
VERSION : 0.1
VAR_TEMP
OB100_EV_CLASS : Byte; // 16#13, Event class 1
OB100_STRTUP : Byte; // 16#81/82/83/84 Method of startup
OB100_PRIORITY : Byte; // Priority of OB Execution
OB100_OB_NUMBR : Byte; // 100 (Organization block 100, OB100)
OB100_RESERVED_1 : Byte; // Reserved for system
OB100_RESERVED_2 : Byte; // Reserved for system
OB100_STOP : Word; // Event that caused CPU to stop (16#4xxx)
OB100_STRT_INFO : DWord; // Information on how system started
OB100_DATE_TIME : Date_And_Time; // Date and time OB100 started
END_VAR
BEGIN
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate, //Transfer data record
ID := 2046, //integrated profinet interface
INDEX := -20367, //Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record); //Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
END_ORGANIZATION_BLOCK

```

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Produktinformation SNMP deaktivieren
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SIEMENS

SIMATIC

S7-300, ET 200S, ET 200pro

Product information Deactivating SNMP

Product Information

Introduction

This product information contains important information about the CPUs listed in the "Validity" paragraph. The product information is part of the product supplied. The statements provided in this product information should be considered more up-to-date than other documentation if uncertainties arise.

Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that can be implemented, please visit <https://www.siemens.com/industrialsecurity>.

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customers' exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed visit <https://www.siemens.com/industrialsecurity>.

Validity

The statements in this product information are valid for the (F)-CPUs listed below:

| CPU designation | Article number | Firmware version |
|--------------------|---------------------|-------------------|
| S7-300 | | |
| CPU314C-2PN/DP | 6ES7314-6EH04-0AB0 | V3.3.16 or higher |
| CPU 315-2PN/DP | 6ES7 315-2EH14-0AB0 | V3.2.16 or higher |
| CPU 315F-2PN/DP | 6ES7 315-2FJ14-0AB0 | V3.2.16 or higher |
| CPU 317-2PN/DP | 6ES7 317-2EK14-0AB0 | V3.2.16 or higher |
| CPU 317F-2PN/DP | 6ES7 317-2FK14-0AB0 | V3.2.16 or higher |
| CPU 319-3PN/DP | 6ES7 318-3EL01-0AB0 | V3.2.16 or higher |
| CPU 319F-3PN/DP | 6ES7 318-3FL01-0AB0 | V3.2.16 or higher |
| CPU315T-3PN/DP | 6ES7315-7TJ10-0AB0 | V3.2.16 or higher |
| CPU317T-3PN/DP | 6ES7317-7TK10-0AB0 | V3.2.16 or higher |
| CPU317TF-3PN/DP | 6ES7317-7UL10-0AB0 | V3.2.16 or higher |
| ET 200S | | |
| IM151-8 PN/DP CPU | 6ES7 151-8AB01-0AB0 | V3.2.16 or higher |
| IM151-8F PN/DP CPU | 6ES7 151-8FB01-0AB0 | V3.2.16 or higher |

| | | |
|---------------------|---------------------|-------------------|
| ET 200pro | | |
| IM154-8 PN/DP CPU | 6ES7 154-8AB01-0AB0 | V3.2.16 or higher |
| IM154-8F PN/DP CPU | 6ES7 154-8FB01-0AB0 | V3.2.16 or higher |
| IM154-8FX PN/DP CPU | 6ES7 154-8FX00-0AB0 | V3.2.16 or higher |

Deactivating/activating SNMP

Under certain conditions, it is useful to deactivate SNMP. Examples:

- The security guidelines in your network do not allow the use of SNMP.
- You use your own SNMP solution, e.g. with your own communications instructions.

If you deactivate SNMP for a device, various options for diagnostics of the network topology (e.g. using the PRONETA tool or the Web server of the CPU) are no longer available to you.

To deactivate/activate SNMP for the integrated interfaces of the CPU, follow these steps:

1. In STEP 7, create a data block that contains the structure of data record B071_H.
 - The following table shows the structure of the data record B071_H.

| Byte | Element | Code | Explanation |
|---------|-----------------|---------------------------------|--|
| 0 to 1 | BlockID | F003 _H | Header The data record length is counted starting at byte 4 "Version". |
| 2 to 3 | BlockLength | 8 | |
| 4 | Version | 01 _H | |
| 5 | Subversion | 00 _H | |
| 6 to 7 | Reserved | - | - |
| 8 to 11 | SNMP controller | Deactivation/activation of SNMP | If you want to deactivate SNMP, enter the value 0. (16#0000_0000) If you want to activate SNMP, enter the value 1. (16#0000_0001) |

2. Transfer the data record B071_H in the startup OB (OB100) with the WRREC instruction (write data record) to the CPU. Use the diagnostics address of an integrated interface of the CPU here.

Example

Task

As the security guidelines in your network do not allow SNMP, you want to deactivate SNMP for a CPU.

Solution

First, create a data block that contains the structure of data record B071_H. The figure below shows the data block "Deactivate SNMP". The data block "Deactivate SNMP" contains not only the data record B071_H, but additional tags that you use to transfer the data record. The tag "snmp_deactivate" is used to trigger the job for WRREC.

Table 1 Example: Data block for deactivating SNMP

| Name | Data type | Offset | Start value | Comment |
|-----------------|-----------|--------|--------------|-----------------------|
| snmp_deactivate | Bool | 0.0 | true | Tags for deactivation |
| snmp_record | Struct | - | - | Data record 16#B071 |
| BlockID | Word | 2.0 | 16#F003 | - |
| BlockLength | Word | 4.0 | 16#0008 | - |
| Version | Byte | 6.0 | 16#01 | - |
| Subversion | Byte | 7.0 | 16#00 | - |
| Reserved | Word | 8.0 | 16#0000 | - |
| SNMP_control | DWord | 10.0 | 16#0000_0000 | - |
| snmp_done | Bool | 14.0 | false | - |
| snmp_error | Bool | 14.1 | false | - |
| snmp_status | DWord | 16.0 | 16#0000_0000 | - |

Transfer the data record B071_H in the startup OB (OB100) to the CPU with the WRREC instruction (write data record).

In the following program code, the data record B071_H is transferred with the WRREC instruction in a REPEAT UNTIL loop.

```
...
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate, //Transfer data record
ID := 2046, //integrated profinet interface
INDEX := -20367, //Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record); //Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
...
```


Using program code

You will find the full program code below.

Follow these steps to apply the program code to your project:

1. Copy the entire program code to the clipboard with Ctrl+A, Ctrl+C.
2. Open a text editor (e.g. "Notepad").
3. Paste the content of the clipboard to the text editor with Ctrl+V.
4. Save the document as an scl file, e.g. SNMP_DEACT.scl.
5. Open your project in STEP 7.
6. Import the scl file as an external source.
You will find further information on importing external sources in the STEP 7 online help.
7. Generate the startup OB and the data blocks. (right-click on the scl file, shortcut menu: "Generate blocks from source")

Reactivating SNMP

With small changes, you can use the program code to activate SNMP.

In the user program, assign the "Deactivate SNMP".snmp_record.SNMPControl tag the value "1":

```
"Deactivate SNMP".snmp_record.SNMP_control := 1;
```

SNMP will then be activated again the next time the CPU is started.

Full program code

```
DATA_BLOCK "WRREC_DB_1"  
{InstructionName := 'WRREC';  
LibVersion := '1.1';  
S7_Optimized_Access := 'FALSE' }  
AUTHOR : SIMATIC  
FAMILY : DP  
NAME : WRREC  
VERSION : 1.0  
WRREC  
BEGIN  
END_DATA_BLOCK  
DATA_BLOCK "Deactivate SNMP"  
{ S7_Optimized_Access := 'FALSE' }  
VERSION : 0.1  
STRUCT  
snmp_deactivate : Bool;  
snmp_record : Struct  
BlockID : Word;  
BlockLenght : Word;  
"Version" : Byte;  
Subversion : Byte;  
Reserved : Word;  
SNMP_control : DWord;  
END_STRUCT;  
snmp_done : Bool;  
snmp_error : Bool;  
snmp_status : DWord;  
END_STRUCT;
```

```

BEGIN
snmp_record.BlockID := 16#F003;
snmp_record.BlockLenght := 16#0008;
snmp_record."Version" := 16#0001;
END_DATA_BLOCK
ORGANIZATION_BLOCK "COMPLETE RESTART"
TITLE = "Complete Restart"
{ S7_Optimized_Access := 'FALSE' }
VERSION : 0.1
VAR_TEMP
OB100_EV_CLASS : Byte; // 16#13, Event class 1
OB100_STRTUP : Byte; // 16#81/82/83/84 Method of startup
OB100_PRIORITY : Byte; // Priority of OB Execution
OB100_OB_NUMBR : Byte; // 100 (Organization block 100, OB100)
OB100_RESERVED_1 : Byte; // Reserved for system
OB100_RESERVED_2 : Byte; // Reserved for system
OB100_STOP : Word; // Event that caused CPU to stop (16#4xxx)
OB100_STRT_INFO : DWord; // Information on how system started
OB100_DATE_TIME : Date_And_Time; // Date and time OB100 started
END_VAR
BEGIN
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate,//Transfer data record
ID := 2046,//integrated profinet interface
INDEX := -20367,//Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record);//Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
END_ORGANIZATION_BLOCK

```

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Product information Deactivating SNMP
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SIEMENS

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S7-300, ET 200S, ET 200pro

Information produit Désactivation de SNMP

Information produit

Introduction

Cette information produit contient des informations importantes sur les CPU mentionnées dans la section "Domaine de validité". L'information produit fait partie de la livraison du produit. Les informations contenues dans cette information produit prévalent en cas de doute sur celles d'autres documents.

Notes relatives à la sécurité

Siemens commercialise des produits et solutions comprenant des fonctions de sécurité industrielle qui contribuent à une exploitation sûre des installations, solutions, machines, équipements et réseaux.

Pour garantir la sécurité des installations, systèmes, machines et réseaux contre les cybermenaces, il est nécessaire d'implémenter (et de préserver) un concept de sécurité industrielle global et de pointe. Les produits et solutions de Siemens constituent une partie de ce concept.

Il incombe aux clients d'empêcher tout accès non autorisé à leurs installations, systèmes, machines et réseaux. Ces systèmes, machines et composants doivent uniquement être connectés au réseau d'entreprise ou à Internet si et dans la mesure où cela est nécessaire et seulement si des mesures de protection adéquates (ex: pare-feux et/ou segmentation du réseau) ont été prises.

Pour plus d'informations sur les mesures de protection pouvant être mises en œuvre dans le domaine de la sécurité industrielle, rendez-vous sur (<https://www.siemens.com/industrialsecurity>).

Les produits et solutions Siemens font l'objet de développements continus pour être encore plus sûrs. Siemens recommande vivement d'effectuer des mises à jour dès que celles-ci sont disponibles et d'utiliser la dernière version des produits. L'utilisation de versions qui ne sont plus prises en charge et la non-application des dernières mises à jour peut augmenter le risque de cybermenaces pour nos clients.

Pour être informé des mises à jour produit, abonnez-vous au flux RSS Siemens Industrial Security à l'adresse suivante (<https://www.siemens.com/industrialsecurity>).

Domaine de validité

Les informations contenues dans cette information produit sont valables pour les CPU (F) énumérées :

| Désignation de la CPU | Numéro d'article | Version de firmware |
|-----------------------|---------------------|---------------------|
| S7-300 | | |
| CPU314C-2PN/DP | 6ES7314-6EH04-0AB0 | à partir de V3.3.16 |
| CPU 315-2PN/DP | 6ES7 315-2EH14-0AB0 | à partir de V3.2.16 |
| CPU 315F-2PN/DP | 6ES7 315-2FJ14-0AB0 | à partir de V3.2.16 |
| CPU 317-2PN/DP | 6ES7 317-2EK14-0AB0 | à partir de V3.2.16 |
| CPU 317F-2PN/DP | 6ES7 317-2FK14-0AB0 | à partir de V3.2.16 |
| CPU 319-3PN/DP | 6ES7 318-3EL01-0AB0 | à partir de V3.2.16 |
| CPU 319F-3PN/DP | 6ES7 318-3FL01-0AB0 | à partir de V3.2.16 |
| CPU315T-3PN/DP | 6ES7315-7TJ10-0AB0 | à partir de V3.2.16 |
| CPU317T-3PN/DP | 6ES7317-7TK10-0AB0 | à partir de V3.2.16 |
| CPU317TF-3PN/DP | 6ES7317-7UL10-0AB0 | à partir de V3.2.16 |
| ET 200S | | |
| IM151-8 PN/DP CPU | 6ES7 151-8AB01-0AB0 | à partir de V3.2.16 |
| IM151-8F PN/DP CPU | 6ES7 151-8FB01-0AB0 | à partir de V3.2.16 |

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|---------------------|---------------------|---------------------|
| ET 200pro | | |
| IM154-8 PN/DP CPU | 6ES7 154-8AB01-0AB0 | à partir de V3.2.16 |
| IM154-8F PN/DP CPU | 6ES7 154-8FB01-0AB0 | à partir de V3.2.16 |
| IM154-8FX PN/DP CPU | 6ES7 154-8FX00-0AB0 | à partir de V3.2.16 |

Désactivation/activation de SNMP

Dans certaines conditions, il est judicieux de désactiver SNMP. Exemples :

- La stratégie de sécurité de votre réseau n'autorise pas l'utilisation de SNMP.
- Vous utilisez une solution SNMP personnalisée, par ex. vos propres instructions de communication.

Si vous désactivez SNMP sur un appareil, certaines possibilités de diagnostic de la topologie de réseau (par ex. avec l'utilitaire PRONETA ou le serveur Internet de la CPU) ne seront plus disponibles.

Pour désactiver SNMP sur les interfaces intégrées de la CPU, procédez comme suit :

1. Créez sous STEP 7 un bloc de données qui contient la structure de l'enregistrement B071H.
 - Le tableau suivant montre la structure de cet enregistrement B071H.

| Octet | Élément | Codage | Explication |
|-------|---------------|----------------------------------|---|
| 0-1 | BlockID | F003H | En-tête La longueur de l'enregistrement est comptée à partir de l'octet 4 "Version". |
| 2-3 | BlockLength | 8 | |
| 4 | Version | 01H | |
| 5 | Subversion | 00H | |
| 6-7 | réservé | - | - |
| 8-11 | Commande SNMP | Désactivation/activation de SNMP | Si vous voulez désactiver SNMP, entrez la valeur "0". (16#0000_0000) Si vous voulez activer SNMP, entrez la valeur "1". (16#0000_0001) |

2. Transférez l'enregistrement B071H dans l'OB de démarrage (OB100) avec l'instruction WRREC (écrire enregistrement) sur la CPU.
Pour ce faire, utilisez l'adresse de diagnostic d'une interface intégrée de la CPU.

Exemple

Tâche

La stratégie de sécurité de votre réseau n'autorisant pas l'utilisation de SNMP, vous voulez désactiver SNMP pour une CPU.

Solution

Créez d'abord un bloc de données qui contient la structure de l'enregistrement B071H. La figure suivante montre le bloc de données "Deactivate SNMP". Le bloc de données "Deactivate SNMP" contient, outre l'enregistrement B071H, des variables que vous utiliserez pour la transmission de l'enregistrement. La variable "snmp_deactivate" sert à lancer la tâche pour WRREC.

Tableau 1 Exemple : Bloc de données pour la désactivation de SNMP

| Nom | Type de données | Décalage | Valeur initiale | Commentaire |
|-----------------|-----------------|----------|-----------------|--------------------------------|
| snmp_deactivate | Bool | 0.0 | true | Variable pour la désactivation |
| snmp_record | Struct | - | - | Enregistrement 16#B071 |
| BlockID | Word | 2.0 | 16#F003 | - |
| BlockLength | Word | 4.0 | 16#0008 | - |
| Version | Octet | 6.0 | 16#01 | - |
| Subversion | Octet | 7.0 | 16#00 | - |
| Réservé | Word | 8.0 | 16#0000 | - |
| SNMP_control | DWord | 10.0 | 16#0000_0000 | - |
| snmp_done | Bool | 14.0 | false | - |
| snmp_error | Bool | 14.1 | false | - |
| snmp_status | DWord | 16.0 | 16#0000_0000 | - |

Dans l'OB de démarrage (OB100), appelez l'instruction WRREC (Écrire enregistrement) pour transférer l'enregistrement B071H dans la CPU.

Dans le code de programme ci-après, l'enregistrement B071H est transféré par l'instruction WRREC dans une boucle REPEAT UNTIL.

```
...
  "Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
  "Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
  REPEAT
  //Write data record
  "WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate, //Transfer data record
    ID := 2046, //integrated profinet interface
    INDEX := -20367, //Data record number for snmp deactivation
    LEN := 12,
    DONE => "Deactivate SNMP".snmp_done,
    ERROR => "Deactivate SNMP".snmp_error,
    STATUS => "Deactivate SNMP".snmp_status,
    RECORD := "Deactivate SNMP".snmp_record); //Data record
  UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
  END_REPEAT;
...
```

Utilisation du code de programme

Vous trouvez le code de programme complet ci-dessous.

Pour intégrer le code de programme à votre projet, procédez comme suit :

1. Copiez le code de programme complet dans le presse-papiers avec Ctrl+A, Ctrl+C.
2. Ouvrez un éditeur de texte (le "Bloc-notes", par exemple).
3. Collez le contenu du presse-papiers dans l'éditeur de texte par Ctrl+V.
4. Enregistrez le document comme fichier scl, par ex. SNMP_DEACT.scl.
5. Ouvrez votre projet sous STEP 7.
6. Importez le fichier scl comme source externe.
Pour plus d'informations sur l'importation de sources externes, référez-vous à l'aide en ligne de STEP 7.
7. Générez l'OB de démarrage et les blocs de données. (Cliquez à droite sur le fichier scl, menu contextuel : "Générer le bloc à partir de la source")

Réactivation de SNMP

Avec de légères modifications, vous pouvez utiliser le code de programme pour activer SNMP.

Attribuez à la variable "Deactivate SNMP".snmp_record.SNMPControl" dans le programme utilisateur la valeur "1" :

```
"Deactivate SNMP".snmp_record.SNMP_control := 1 ;
```

SNMP est de nouveau activé lors du prochain démarrage de la CPU.

Code de programme complet

```
DATA_BLOCK "WRREC_DB_1"
{InstructionName := 'WRREC';
 LibVersion := '1.1';
 S7_Optimized_Access := 'FALSE' }
AUTHOR : SIMATIC
FAMILY : DP
NAME : WRREC
VERSION : 1.0
WRREC
BEGIN
END_DATA_BLOCK
DATA_BLOCK "Deactivate SNMP"
{ S7_Optimized_Access := 'FALSE' }
VERSION : 0.1
STRUCT
snmp_deactivate : Bool;
snmp_record : Struct
BlockID : Word;
BlockLenght : Word;
"Version" : Byte;
Subversion : Byte;
Reserved : Word;
SNMP_control : DWord;
END_STRUCT;
snmp_done : Bool;
snmp_error : Bool;
snmp_status : DWord;
END_STRUCT;
```

```

BEGIN
snmp_record.BlockID := 16#F003;
snmp_record.BlockLenght := 16#0008;
snmp_record."Version" := 16#0001;
END_DATA_BLOCK
ORGANIZATION_BLOCK "COMPLETE RESTART"
TITLE = "Complete Restart"
{ S7_Optimized_Access := 'FALSE' }
VERSION : 0.1
VAR_TEMP
OB100_EV_CLASS : Byte; // 16#13, Event class 1
OB100_STRTUP : Byte; // 16#81/82/83/84 Method of startup
OB100_PRIORITY : Byte; // Priority of OB Execution
OB100_OB_NUMBR : Byte; // 100 (Organization block 100, OB100)
OB100_RESERVED_1 : Byte; // Reserved for system
OB100_RESERVED_2 : Byte; // Reserved for system
OB100_STOP : Word; // Event that caused CPU to stop (16#4xxx)
OB100_STRT_INFO : DWord; // Information on how system started
OB100_DATE_TIME : Date_And_Time; // Date and time OB100 started
END_VAR
BEGIN
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate, //Transfer data record
ID := 2046, //integrated profinet interface
INDEX := -20367, //Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record); //Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
END_ORGANIZATION_BLOCK

```

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Information produit Désactivation de SNMP
A5E46739177-AA, 02/2019

SIEMENS

SIMATIC

S7-300, ET 200S, ET 200pro

Información del producto Desactivar SNMP

Información del producto

Introducción

La presente información del producto contiene información importante sobre las CPU indicadas en el apartado "Ámbito de validez". La información del producto forma parte del producto suministrado. En caso de duda, las indicaciones que contiene esta información del producto deben considerarse más recientes.

Información de seguridad

Siemens ofrece productos y soluciones con funciones de seguridad industrial con el objetivo de hacer más seguro el funcionamiento de instalaciones, sistemas, máquinas y redes.

Para proteger las instalaciones, los sistemas, las máquinas y las redes de amenazas cibernéticas, es necesario implementar (y mantener continuamente) un concepto de seguridad industrial integral que sea conforme a la tecnología más avanzada. Los productos y las soluciones de Siemens constituyen únicamente una parte de este concepto.

Los clientes son responsables de impedir el acceso no autorizado a sus instalaciones, sistemas, máquinas y redes. Dichos sistemas, máquinas y componentes solo deben estar conectados a la red corporativa o a Internet cuando y en la medida que sea necesario y siempre que se hayan tomado las medidas de protección adecuadas (p. ej. uso de cortafuegos y segmentación de la red).

Para obtener información adicional sobre las medidas de seguridad industrial que podrían ser implementadas, por favor visite (<https://www.siemens.com/industrialsecurity>).

Los productos y las soluciones de Siemens están sometidos a un desarrollo constante con el fin de mejorar todavía más su seguridad. Siemens recomienda expresamente realizar actualizaciones en cuanto estén disponibles y utilizar únicamente las últimas versiones de los productos. El uso de versiones anteriores o que ya no se soportan puede aumentar el riesgo de amenazas cibernéticas.

Para mantenerse informado de las actualizaciones de productos, recomendamos que se suscriba al Siemens Industrial Security RSS Feed en (<https://www.siemens.com/industrialsecurity>).

Ámbito de validez

El contenido de esta información del producto es válido para las CPU de seguridad indicadas a continuación:

| Nombre de la CPU | Referencia | Versión del firmware |
|--------------------|---------------------|----------------------|
| S7-300 | | |
| CPU314C-2PN/DP | 6ES7314-6EH04-0AB0 | A partir de V3.3.16 |
| CPU 315-2PN/DP | 6ES7 315-2EH14-0AB0 | A partir de V3.2.16 |
| CPU 315F-2PN/DP | 6ES7 315-2FJ14-0AB0 | A partir de V3.2.16 |
| CPU 317-2PN/DP | 6ES7 317-2EK14-0AB0 | A partir de V3.2.16 |
| CPU 317F-2PN/DP | 6ES7 317-2FK14-0AB0 | A partir de V3.2.16 |
| CPU 319-3PN/DP | 6ES7 318-3EL01-0AB0 | A partir de V3.2.16 |
| CPU 319F-3PN/DP | 6ES7 318-3FL01-0AB0 | A partir de V3.2.16 |
| CPU315T-3PN/DP | 6ES7315-7TJ10-0AB0 | A partir de V3.2.16 |
| CPU317T-3PN/DP | 6ES7317-7TK10-0AB0 | A partir de V3.2.16 |
| CPU317TF-3PN/DP | 6ES7317-7UL10-0AB0 | A partir de V3.2.16 |
| ET 200S | | |
| IM151-8 PN/DP CPU | 6ES7 151-8AB01-0AB0 | A partir de V3.2.16 |
| IM151-8F PN/DP CPU | 6ES7 151-8FB01-0AB0 | A partir de V3.2.16 |

| | | |
|---------------------|---------------------|---------------------|
| ET 200pro | | |
| IM154-8 PN/DP CPU | 6ES7 154-8AB01-0AB0 | A partir de V3.2.16 |
| IM154-8F PN/DP CPU | 6ES7 154-8FB01-0AB0 | A partir de V3.2.16 |
| IM154-8FX PN/DP CPU | 6ES7 154-8FX00-0AB0 | A partir de V3.2.16 |

Desactivar/activar SNMP

En determinadas circunstancias conviene desactivar SNMP. Ejemplos:

- Las directivas de seguridad de la red no permiten utilizar SNMP.
- Se utiliza una solución SNMP propia, p. ej. con instrucciones de comunicación propias.

Si se desactiva SNMP para un dispositivo, ya no dispondrá de algunas de las opciones de diagnóstico de la topología de red (p. ej., mediante la herramienta PRONETA o el servidor web de la CPU).

Para desactivar/activar SNMP para las interfaces integradas de la CPU, haga lo siguiente:

1. Cree un bloque de datos en STEP 7 que contenga la estructura del juego de datos B071_H.
 - La siguiente tabla muestra la estructura del juego de datos B071_H.

| Byte | Elemento | Codificación | Explicación |
|------|------------------|-------------------------|---|
| 0-1 | BlockID | F003 _H | Encabezado |
| 2-3 | BlockLength | 8 | La longitud del juego de datos se cuenta a partir del byte 4 "Versión". |
| 4 | Version | 01 _H | |
| 5 | Subversion | 00 _H | |
| 6-7 | Reservado | - | - |
| 8-11 | Controlador SNMP | Desactivar/activar SNMP | Si desea desactivar SNMP, introduzca el valor 0. (16#0000_0000) Si desea activar SNMP, introduzca el valor 1. (16#0000_0001) |

2. Transfiera el juego de datos B071_H del OB de arranque (OB100) a la CPU con la instrucción WRREC (escribir registro). Utilice para ello la dirección de diagnóstico de una interfaz integrada de la CPU.

Ejemplo

Tarea

Dado que las directivas de seguridad de su red no permiten SNMP, quiere desactivar SNMP para una CPU.

Solución

En primer lugar, cree un bloque de datos que contenga la estructura del juego de datos B071_H. La figura siguiente muestra el bloque de datos "Deactivate SNMP". Además del juego de datos B071_H, el bloque de datos "Deactivate SNMP" contiene otras variables que se utilizan para transferir el juego de datos. La variable "snmp_deactivate" sirve para lanzar la orden de WRREC.

Tabla 1 Ejemplo: Bloque de datos para desactivar SNMP

| Nombre | Tipo de datos | Offset | Valor inicial | Comentario |
|-----------------|---------------|--------|---------------|--------------------------|
| snmp_deactivate | Bool | 0.0 | true | Variable para desactivar |
| snmp_record | Struct | - | - | Juego de datos 16#B071 |
| BlockID | Word | 2.0 | 16#F003 | - |
| BlockLength | Word | 4.0 | 16#0008 | - |
| Version | Byte | 6.0 | 16#01 | - |
| Subversion | Byte | 7.0 | 16#00: | - |
| Reserved | Word | 8.0 | 16#0000 | - |
| SNMP_control | DWord | 10.0 | 16#0000_0000 | - |
| snmp_done | Bool | 14.0 | false | - |
| snmp_error | Bool | 14.1 | false | - |
| snmp_status | DWord | 16.0 | 16#0000_0000 | - |

Transfiera el juego de datos B071_H del OB de arranque (OB100) a la CPU con la instrucción WRREC (escribir registro).

En el siguiente código del programa, el juego de datos B071_H se transfiere con la instrucción WRREC en un bucle REPEAT UNTIL.

```
...
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate, //Transfer data record
ID := 2046, //integrated profinet interface
INDEX := -20367, //Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record); //Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
...
```

Utilizar el código del programa

Más abajo encontrará todo el código del programa

Para incorporar el código del programa al proyecto, haga lo siguiente:

1. Copie todo el código del programa en el portapapeles con los comandos Ctrl+A, Ctrl+C.
2. Abra un editor de textos (p. ej. "Editor").
3. Inserte el contenido del portapapeles en el editor de textos con el comando Ctrl+V.
4. Guarde el documento como archivo scl, p. ej. SNMP_DEACT.scl.
5. Abra el proyecto en STEP 7.
6. Importe el archivo scl como fuente externa.
Encontrará más información sobre la importación de fuentes externas en la Ayuda en pantalla de STEP 7.
7. Cree el OB de arranque y los bloques de datos. (Haga clic con el botón derecho del ratón en el archivo scl, menú contextual: "Generar bloque a partir de fuente")

Activar SNMP nuevamente

Con unos pocos cambios puede utilizar el código del programa para activar SNMP.

En el programa de usuario, asigne el valor "1" a la variable "Deactivate SNMP".snmp_record.SNMPControl:

```
"Deactivate SNMP".snmp_record.SNMP_control := 1;
```

En el siguiente arranque de la CPU se volverá a activar SNMP.

Código del programa completo

```
DATA_BLOCK "WRREC_DB_1"
{InstructionName := 'WRREC';
LibVersion := '1.1';
S7_Optimized_Access := 'FALSE' }
AUTHOR : SIMATIC
FAMILY : DP
NAME : WRREC
VERSION : 1.0
WRREC
BEGIN
END_DATA_BLOCK
DATA_BLOCK "Deactivate SNMP"
{ S7_Optimized_Access := 'FALSE' }
VERSION : 0.1
STRUCT
snmp_deactivate : Bool;
snmp_record : Struct
BlockID : Word;
BlockLenght : Word;
"Version" : Byte;
Subversion : Byte;
Reserved : Word;
SNMP_control : DWord;
END_STRUCT;
snmp_done : Bool;
snmp_error : Bool;
snmp_status : DWord;
END_STRUCT;
```

```

BEGIN
snmp_record.BlockID := 16#F003;
snmp_record.BlockLenght := 16#0008;
snmp_record."Version" := 16#0001;
END_DATA_BLOCK
ORGANIZATION_BLOCK "COMPLETE RESTART"
TITLE = "Complete Restart"
{ S7_Optimized_Access := 'FALSE' }
VERSION : 0.1
VAR_TEMP
OB100_EV_CLASS : Byte; // 16#13, Event class 1
OB100_STRTUP : Byte; // 16#81/82/83/84 Method of startup
OB100_PRIORITY : Byte; // Priority of OB Execution
OB100_OB_NUMBR : Byte; // 100 (Organization block 100, OB100)
OB100_RESERVED_1 : Byte; // Reserved for system
OB100_RESERVED_2 : Byte; // Reserved for system
OB100_STOP : Word; // Event that caused CPU to stop (16#4xxx)
OB100_STRT_INFO : DWord; // Information on how system started
OB100_DATE_TIME : Date_And_Time; // Date and time OB100 started
END_VAR
BEGIN
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate,//Transfer data record
ID := 2046,//integrated profinet interface
INDEX := -20367,//Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record);//Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
END_ORGANIZATION_BLOCK

```

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Información del producto Desactivar SNMP
A5E46739177-AA, 02/2019

SIEMENS

SIMATIC

S7-300, ET 200S, ET 200pro

Disattivazione dell'informazione sul prodotto SNMP

Informazioni sul prodotto

Introduzione

Le presenti Informazioni sul prodotto contengono importanti avvertenze sulle CPU indicate nel paragrafo "Campo di validità". Le informazioni sul prodotto sono parte integrante del prodotto fornito. In caso di dubbio il loro contenuto è da considerarsi più aggiornato.

Indicazioni di sicurezza

Siemens commercializza prodotti e soluzioni dotati di funzioni Industrial Security che contribuiscono al funzionamento sicuro di impianti, soluzioni, macchine e reti.

La protezione di impianti, sistemi, macchine e reti da minacce cibernetiche, richiede l'implementazione e la gestione continua di un concetto globale di Industrial Security che corrisponda allo stato attuale della tecnica. I prodotti e le soluzioni Siemens costituiscono parte integrante di questo concetto.

E' responsabilità dei clienti prevenire accessi non autorizzati ai propri impianti, sistemi, macchine e reti. Tali sistemi, macchine e componenti dovrebbero essere connessi unicamente a una rete aziendale o a internet se e nella misura in cui detta connessione sia necessaria e solo quando siano attive appropriate misure di sicurezza (ad es. firewall e segmentazione della rete).

Per ulteriori informazioni relative a misure di Industrial Security implementabili potete visitare il sito (<https://www.siemens.com/industrialsecurity>).

I prodotti e le soluzioni Siemens vengono costantemente perfezionati per incrementarne la sicurezza. Siemens raccomanda espressamente che gli aggiornamenti dei prodotti siano effettuati non appena disponibili e che siano utilizzate le versioni più aggiornate. L'utilizzo di versioni di prodotti non più supportate ed il mancato aggiornamento degli stessi incrementa il rischio di attacchi cibernetiche.

Per essere informati sugli update dei prodotti, potete iscrivervi a Siemens Industrial Security RSS Feed al sito (<https://www.siemens.com/industrialsecurity>).

Campo di validità

Le affermazioni esposte nelle presenti informazioni sul prodotto si riferiscono alle CPU (F) elencate di seguito:

| Nome CPU | Numero articolo | Versione firmware |
|--------------------|---------------------|------------------------|
| S7-300 | | |
| CPU314C-2PN/DP | 6ES7314-6EH04-0AB0 | dalla versione V3.3.16 |
| CPU 315-2PN/DP | 6ES7 315-2EH14-0AB0 | dalla versione V3.2.16 |
| CPU 315F-2PN/DP | 6ES7 315-2FJ14-0AB0 | dalla versione V3.2.16 |
| CPU 317-2PN/DP | 6ES7 317-2EK14-0AB0 | dalla versione V3.2.16 |
| CPU 317F-2PN/DP | 6ES7 317-2FK14-0AB0 | dalla versione V3.2.16 |
| CPU 319-3PN/DP | 6ES7 318-3EL01-0AB0 | dalla versione V3.2.16 |
| CPU 319F-3PN/DP | 6ES7 318-3FL01-0AB0 | dalla versione V3.2.16 |
| CPU315T-3PN/DP | 6ES7315-7TJ10-0AB0 | dalla versione V3.2.16 |
| CPU317T-3PN/DP | 6ES7317-7TK10-0AB0 | dalla versione V3.2.16 |
| CPU317TF-3PN/DP | 6ES7317-7UL10-0AB0 | dalla versione V3.2.16 |
| ET 200S | | |
| CPU IM151-8 PN/DP | 6ES7 151-8AB01-0AB0 | dalla versione V3.2.16 |
| CPU IM151-8F PN/DP | 6ES7 151-8FB01-0AB0 | dalla versione V3.2.16 |

| | | |
|---------------------|---------------------|------------------------|
| ET 200pro | | |
| CPU IM154-8 PN/DP | 6ES7 154-8AB01-0AB0 | dalla versione V3.2.16 |
| CPU IM154-8F PN/DP | 6ES7 154-8FB01-0AB0 | dalla versione V3.2.16 |
| CPU IM154-8FX PN/DP | 6ES7 154-8FX00-0AB0 | dalla versione V3.2.16 |

Disattivazione/attivazione di SNMP

A determinate condizioni è utile disattivare SNMP. Esempi:

- Le direttive di sicurezza della rete non consentono l'utilizzo di SNMP.
- Utilizzare una propria soluzione SNMP, ad es. con istruzioni di comunicazione proprie.

Se si disattiva SNMP per un dispositivo, non saranno più disponibili le diverse possibilità di eseguire la diagnostica della topologia di rete (ad es. con il tool PRONETA o con il server Web della CPU).

Per attivare/disattivare SNMP per l'interfaccia integrata della CPU, procedere come indicato nel seguito:

1. Creare in STEP 7 un blocco dati che contenga la struttura del set di dati B071_H.
 - La tabella seguente mostra la struttura del set di dati B071_H.

| Byte | Elemento | Codifica | Spiegazione |
|------|----------------|------------------------------------|---|
| 0-1 | BlockID | F003 _H | Intestazione La lunghezza dei set di dati viene contata a partire dal byte 4 "versione". |
| 2-3 | BlockLength | 8 | |
| 4 | Versione | 01 _H | |
| 5 | Sottoversione | 00 _H | |
| 6-7 | Riservati | - | - |
| 8-11 | Controllo SNMP | Disattivazione/attivazione di SNMP | Se si vuole disattivare SNMP inserire il valore 0. (16#0000_0000) Se si vuole attivare SNMP inserire il valore 1. (16#0000_0001) |

2. Trasferire alla CPU il set di dati B071_H nell'OB di avviamento (OB100) con l'istruzione WRREC (scrivi set di dati). Utilizzare per questo scopo l'indirizzo di diagnostica di un'interfaccia integrata della CPU.

Esempio

Compito

Poiché le direttive di sicurezza della rete non consentono l'uso di SNMP, disattivare SNMP per la CPU.

Soluzione

Creare prima un blocco dati che contenga la struttura del set di dati B071_H. La figura seguente mostra il blocco dati "Deactivate SNMP". Il blocco dati "Deactivate SNMP" contiene, oltre al set di dati B071_H, ulteriori variabili da utilizzare per il trasferimento del set di dati. La variabile "snmp_deactivate" consente di avviare l'ordine per WRREC.

Tabella 1 Esempio: Blocco dati per la disattivazione di SNMP

| Nome | Tipo di dati | Offset | Valore di avvio | Commento |
|-----------------|--------------|--------|-----------------|---------------------------------|
| snmp_deactivate | Bool | 0.0 | true | Variabili per la disattivazione |
| snmp_record | Struct | - | - | Set di dati 16#B071 |
| BlockID | Word | 2.0 | 16#F003 | - |
| BlockLength | Word | 4.0 | 16#0008 | - |
| Versione | Byte | 6.0 | 16#01 | - |
| Sottoversione | Byte | 7.0 | 16#00 | - |
| Reserved | Word | 8.0 | 16#0000 | - |
| SNMP_control | DWord | 10.0 | 16#0000_0000 | - |
| snmp_done | Bool | 14.0 | false | - |
| snmp_error | Bool | 14.1 | false | - |
| snmp_status | DWord | 16.0 | 16#0000_0000 | - |

Trasferire il set di dati B071_H alla CPU nell'OB di avviamento (OB100) con l'istruzione WRREC (scrivi set di dati).

Nel seguente codice di programma il set di dati B071_H viene trasferito con l'istruzione WRREC in un loop REPEAT UNTIL.

```
...
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate, //Transfer data record
ID := 2046, //integrated profinet interface
INDEX := -20367, //Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record); //Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
...
```

Utilizzo del codice di programma

Il codice completo del programma si trova nel seguito.

Per acquisire il codice di programma nel progetto procedere nel seguente modo:

1. Copiare l'intero codice di programma negli appunti con Ctrl+A, Ctrl+C.
2. Aprire un editor di testo (ad es. "Editor").
3. Incollare il contenuto degli appunti nell'editor di testo con Ctrl+V.
4. Salvare il documento come file scl, ad es. SNMP_DEACT.scl.
5. Aprire il progetto in STEP 7.
6. Importare il file scl come sorgente esterna.
Maggiori informazioni sull'importazione di sorgenti esterne sono disponibili nella Guida in linea a STEP 7.
7. Creare l'OB di avviamento e i blocchi dati. (Clic sul file scl con il tasto destro del mouse, menu di scelta rapida: "Genera blocchi dalla sorgente")

Riattivazione di SNMP

Con alcune piccole modifiche è possibile utilizzare il codice di programma per l'attivazione di SNMP.

Assegnare alla variabile "Deactivate SNMP".snmp_record.SNMPControl il valore "1" nel programma utente.

```
"Deactivate SNMP".snmp_record.SNMP_control := 1;
```

SNMP viene riattivato al successivo avvio della CPU.

Codice di programma completo

```
DATA_BLOCK "WRREC_DB_1"  
{InstructionName := 'WRREC';  
LibVersion := '1.1';  
S7_Optimized_Access := 'FALSE' }  
AUTHOR : SIMATIC  
FAMILY : DP  
NAME : WRREC  
VERSION : 1.0  
WRREC  
BEGIN  
END_DATA_BLOCK  
DATA_BLOCK "Deactivate SNMP"  
{ S7_Optimized_Access := 'FALSE' }  
VERSION : 0.1  
STRUCT  
snmp_deactivate : Bool;  
snmp_record : Struct  
BlockID : Word;  
BlockLenght : Word;  
"Version" : Byte;  
Subversion : Byte;  
Reserved : Word;  
SNMP_control : DWord;  
END_STRUCT;  
snmp_done : Bool;  
snmp_error : Bool;  
snmp_status : DWord;  
END_STRUCT;
```



```

BEGIN
snmp_record.BlockID := 16#F003;
snmp_record.BlockLenght := 16#0008;
snmp_record."Version" := 16#0001;
END_DATA_BLOCK
ORGANIZATION_BLOCK "COMPLETE RESTART"
TITLE = "Complete Restart"
{ S7_Optimized_Access := 'FALSE' }
VERSION : 0.1
VAR_TEMP
OB100_EV_CLASS : Byte; // 16#13, Event class 1
OB100_STRTUP : Byte; // 16#81/82/83/84 Method of startup
OB100_PRIORITY : Byte; // Priority of OB Execution
OB100_OB_NUMBR : Byte; // 100 (Organization block 100, OB100)
OB100_RESERVED_1 : Byte; // Reserved for system
OB100_RESERVED_2 : Byte; // Reserved for system
OB100_STOP : Word; // Event that caused CPU to stop (16#4xxx)
OB100_STRT_INFO : DWord; // Information on how system started
OB100_DATE_TIME : Date_And_Time; // Date and time OB100 started
END_VAR
BEGIN
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate, //Transfer data record
ID := 2046, //integrated profinet interface
INDEX := -20367, //Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record); //Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
END_ORGANIZATION_BLOCK

```

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Disattivazione dell'informazione sul prodotto SNMP
A5E46739177-AA, 02/2019

SIEMENS

SIMATIC

S7-300、ET 200S、ET 200pro

禁用 SNMP 产品信息

产品信息

简介

本产品信息包含有关上述 CPU 的“适用范围”章节的重要信息。该产品信息包含在所提供的产品中。任何不确定之处，应以本产品信息中的内容为准。

安全信息

Siemens 为其产品及解决方案提供了工业安全功能，以支持工厂、系统、机器和网络的安全运行。

为了防止工厂、系统、机器和网络受到网络攻击，需要实施并持续维护先进且全面的工业安全保护机制。Siemens 的产品和解决方案仅构成此类概念的其中一个要素

客户负责防止其工厂、系统、机器和网络受到未经授权的访问。只有在必要时并采取适当安全措施（例如，使用防火墙和/或网络分段）的情况下，才能将系统、机器和组件连接到企业网络或 Internet。

关于可采取的工业信息安全措施的更多信息，请访问 (<https://www.siemens.com/industrialsecurity>)。

西门子不断对产品和解决方案进行开发和完善以提高安全性。Siemens 强烈建议您及时更新产品并始终使用最新产品版本。如果所用的产品版本不再支持，或未更新到最新版本，则会增加客户遭受网络攻击的风险。

要及时了解有关产品更新的信息，请订阅西门子的工业信息安全 RSS 新闻推送，请访问 (<https://www.siemens.com/industrialsecurity>)

适用范围

本产品信息中的内容适用于下列 (F)-CPU：

| CPU 名称 | 订货号 | 固件版本 |
|---------------------|---------------------|---------------|
| S7-300 | | |
| CPU314C-2PN/DP | 6ES7314-6EH04-0AB0 | V3.3.16 或更高版本 |
| CPU 315-2PN/DP | 6ES7 315-2EH14-0AB0 | V3.2.16 或更高版本 |
| CPU 315F-2PN/DP | 6ES7 315-2FJ14-0AB0 | V3.2.16 或更高版本 |
| CPU 317-2PN/DP | 6ES7 317-2EK14-0AB0 | V3.2.16 或更高版本 |
| CPU 317F-2PN/DP | 6ES7 317-2FK14-0AB0 | V3.2.16 或更高版本 |
| CPU 319-3PN/DP | 6ES7 318-3EL01-0AB0 | V3.2.16 或更高版本 |
| CPU 319F-3PN/DP | 6ES7 318-3FL01-0AB0 | V3.2.16 或更高版本 |
| CPU315T-3PN/DP | 6ES7315-7TJ10-0AB0 | V3.2.16 或更高版本 |
| CPU317T-3PN/DP | 6ES7317-7TK10-0AB0 | V3.2.16 或更高版本 |
| CPU317TF-3PN/DP | 6ES7317-7UL10-0AB0 | V3.2.16 或更高版本 |
| ET 200S | | |
| IM151-8 PN/DP CPU | 6ES7 151-8AB01-0AB0 | V3.2.16 或更高版本 |
| IM151-8F PN/DP CPU | 6ES7 151-8FB01-0AB0 | V3.2.16 或更高版本 |
| ET 200pro | | |
| IM154-8 PN/DP CPU | 6ES7 154-8AB01-0AB0 | V3.2.16 或更高版本 |
| IM154-8F PN/DP CPU | 6ES7 154-8FB01-0AB0 | V3.2.16 或更高版本 |
| IM154-8FX PN/DP CPU | 6ES7 154-8FX00-0AB0 | V3.2.16 或更高版本 |

禁用/激活 SNMP

在某些特定条件下，需要禁用 SNMP。示例：

- 网络中的安全规则不允许使用 SNMP。
- 用户可使用自己的通信指令，定制相应的 SNMP 解决方案。

如果禁用设备的 SNMP 功能，则无法使用不同方式对网络拓扑进行诊断（如，使用 PRONETA 工具或 CPU 中的 Web 服务器）。

要禁用/激活 CPU 集成接口的 SNMP 功能，请按以下步骤操作：

1. 在 STEP 7 中，创建一个包含数据记录 B071H 结构的数据块。
 - 下表列出了数据记录 B071H 的结构：

| 字节 | 元素 | 代码 | 说明 |
|--------|----------|------------|--|
| 0 至 1 | 块 ID | F003H | 标头 该数据记录的长度从字节 4“版本”开始计算。 |
| 2 到 3 | 块长度 | 8 | |
| 4 | 版本 | 01H | |
| 5 | 子版本 | 00H | |
| 6 到 7 | 预留 | - | - |
| 8 到 11 | SNMP 控制器 | 禁用/激活 SNMP | 如果要禁用 SNMP，请输入值 0。(16#0000_0000) 如果要激活 SNMP，请输入值 1。(16#0000_0001) |

2. 通过 WRREC 指令，可将启动 OB (OB100) 中的数据记录 B071H 传送到 CPU 中。
并将 CPU 中集成的接口的诊断地址用于此处。

示例

任务

如果网络中的安全规则不允许使用 SNMP，则需禁用 CPU 的 SNMP 功能。

解决方法

首先，创建一个包含数据记录 B071H 结构的数据块。下图显示了数据块“Deactivate SNMP”。数据块“Deactivate SNMP”中不仅包含数据记录 B071H，还包含传输数据记录的其它变量。变量“snmp_deactivate”用于触发 WRREC 作业。

表格 1 示例：禁用 SNMP 的数据块

| 名称 | 数据类型 | 偏移量 (Offset) | 起始值 | 注释 |
|-----------------|--------|--------------|--------------|--------------|
| snmp_deactivate | Bool | 0.0 | true | 用于禁用的变量 |
| snmp_record | Struct | - | - | 数据记录 16#B071 |
| 块 ID | Word | 2.0 | 16#F003 | - |
| 块长度 | Word | 4.0 | 16#0008 | - |
| 版本 | 字节 | 6.0 | 16#01 | - |
| 子版本 | 字节 | 7.0 | 16#00 | - |
| 预留 | Word | 8.0 | 16#0000 | - |
| SNMP_control | DWord | 10.0 | 16#0000_0000 | - |
| snmp_done | Bool | 14.0 | false | - |
| snmp_error | Bool | 14.1 | false | - |
| snmp_status | DWord | 16.0 | 16#0000_0000 | - |

通过 WRREC 指令（写入数据记录），可将启动 OB (OB100) 中的数据记录 B071H 传送到 CPU 中。

在以下程序代码中，在 REPEAT UNTIL 循环中使用 WRREC 指令传输数据记录 B071H。

```
...
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate,//Transfer data record
ID := 2046,//integrated profinet interface
INDEX := -20367,//Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record);//Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
...
```

使用程序代码

有关完整的程序代码，请访问以下内容。

要在项目中用于该程序代码，请按以下步骤操作：

1. 使用快捷键 Ctrl+A 和 Ctrl+C，将完整的程序代码复制到剪贴板中。
2. 打开文本编辑器（如，“记事本”）。
3. 使用快捷键 Ctrl+V，将剪贴板中的内容粘贴到文本编辑器中。
4. 将文档另存为 scl 文件，如 SNMP_DEACT.scl。
5. 在 STEP 7 中打开项目。
6. 将该 scl 文件作为外部资源导入。
有关导入外部源文件的更多信息，请参见 STEP 7 在线帮助。
7. 生成启动 OB 和数据块。（右键单击该 scl 文件，选择快捷菜单：“从源生成块”(Generate blocks from source)）

重新激活 SNMP

只需对以上程序代码进行少量改动，即可启用 SNMP。

在用户程序中，将变量 "Deactivate SNMP".snmp_record.SNMPControl 的值赋值为“1”：

```
"Deactivate SNMP".snmp_record.SNMP_control := 1;
```

SNMP 将在 CPU 下一次启动时重新激活。

完整程序代码

```
DATA_BLOCK "WRREC_DB_1"
{InstructionName := 'WRREC';
LibVersion := '1.1';
S7_Optimized_Access := 'FALSE' }
AUTHOR : SIMATIC
FAMILY : DP
NAME : WRREC
VERSION : 1.0
WRREC
BEGIN
END_DATA_BLOCK
DATA_BLOCK "Deactivate SNMP"
{ S7_Optimized_Access := 'FALSE' }
VERSION : 0.1
STRUCT
snmp_deactivate : Bool;
snmp_record : Struct
BlockID : Word;
BlockLenght : Word;
"Version" : Byte;
Subversion : Byte;
Reserved : Word;
SNMP_control : DWord;
END_STRUCT;
snmp_done : Bool;
snmp_error : Bool;
snmp_status : DWord;
END_STRUCT;
BEGIN
snmp_record.BlockID := 16#F003;
snmp_record.BlockLenght := 16#0008;
snmp_record."Version" := 16#0001;
END_DATA_BLOCK
ORGANIZATION_BLOCK "COMPLETE RESTART"
TITLE = "Complete Restart"
{ S7_Optimized_Access := 'FALSE' }
VERSION : 0.1
VAR_TEMP
OB100_EV_CLASS : Byte; // 16#13, Event class 1
OB100_STRTUP : Byte; // 16#81/82/83/84 Method of startup
OB100_PRIORITY : Byte; // Priority of OB Execution
OB100_OB_NUMBR : Byte; // 100 (Organization block 100, OB100)
OB100_RESERVED_1 : Byte; // Reserved for system
OB100_RESERVED_2 : Byte; // Reserved for system
OB100_STOP : Word; // Event that caused CPU to stop (16#4xxx)
OB100_STRT_INFO : DWord; // Information on how system started
OB100_DATE_TIME : Date_And_Time; // Date and time OB100 started
END_VAR
```

```
BEGIN
"Deactivate SNMP".snmp_deactivate := 1; //Set WRREC Request
"Deactivate SNMP".snmp_record.SNMP_control := 16#0; //act=1 ; deact= 0
REPEAT
//Write data record
"WRREC_DB_1"(REQ := "Deactivate SNMP".snmp_deactivate, //Transfer data record
ID := 2046, //integrated profinet interface
INDEX := -20367, //Data record number for snmp deactivation
LEN := 12,
DONE => "Deactivate SNMP".snmp_done,
ERROR => "Deactivate SNMP".snmp_error,
STATUS => "Deactivate SNMP".snmp_status,
RECORD := "Deactivate SNMP".snmp_record); //Data record
UNTIL "Deactivate SNMP".snmp_done OR "Deactivate SNMP".snmp_error
END_REPEAT;
END_ORGANIZATION_BLOCK
```

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禁用 SNMP 产品信息
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