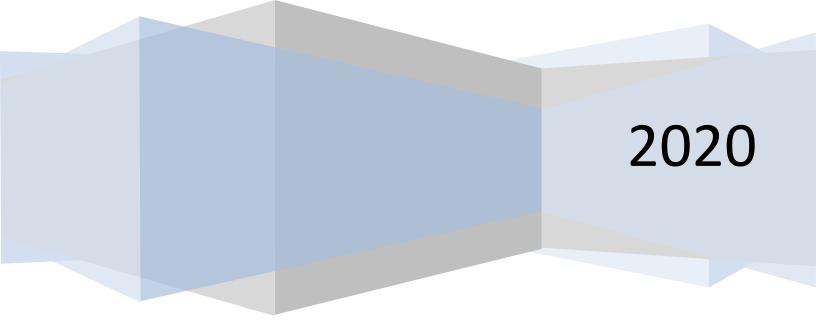**Server Technology**

# Server Technology INI Configuration (STIC) V2.19 - File Format (PROx)

2020

## Overview

Server Technology INI Configuration (STIC) file format is a proprietary text based configuration format utilized by Server Technology's Cabinet & Power Distribution Units (CDUs & PDUs). It is specifically designed to work with Server Technology's StartUp Stick (SUS), as well as other PDU network interfaces such as HTTPS/HTTP web uploads or SFTP/FTP pushes. The format is simple, yet flexible enough to expand into every aspect of Server Technology's current and future configuration needs.

STIC is based on the informal but well-known initialization (INI) file format. Enhanced flexibility has been added to the format to be more cross-platform friendly. However, certain proprietary rules apply. This document describes the format, section categories, property definitions, and value restrictions for STIC.

StartUp Stick configuration is handled by an I2C exchange over the NIC's primary link port. The PDU constantly checks for a StartUp Stick on the LINK port every few seconds. Once detected, the system performs authentication phase. If the login credentials are valid, the PDU initiates a SUS exchange to determine if a STIC file is available and if so, processes it. Upon completion, the PDU will forward success, partial success, or failure information to be logged on the StartUp Stick and set the appropriate SUS status indicators.

## Logging

Logging was initially designed StartUp Stick status reports, and may or may not be relevant depending on the application. Only one Startup Stick log entry is generated per transaction, which includes the NIC serial number, "**SUCCESS**" or "**FAILURE**", and a small status description. If an error or unknown property is detected, a STIC line number and current STIC protocol version number will also be included in the message for later analysis.

If a STIC file is considered good enough to write, the PDU system log will show all potentially valid properties that were not present along with the line number.

## Format

```
; this is a comment… you can also use #
[Server Technology INI Configuration]

[section]
<property>: <value>
<property> =<value>
<property> : "<value>"
```

## General Rules

- STIC is a text file format that is examined per line and terminated by a linefeed (LF) character or carriage return / linefeed (CRLF) combo. Each line cannot be longer than 511 characters. The file name must have an ".INI" extension to be recognized by the PDU or StartUp Stick tool. Other file size and name length limits may apply depending on use.

- Any line that begins with a ';' or '#' comment will be ignored. Preceding spaces, tabs, and non-printable characters, including blank lines, will also be ignored. Post-value white space and control characters are also ignored.

- Configuration categories are defined by section headers. These are case-insensitive and must be enclosed in [.....] brackets. Section headers may use '.' separators between labels to specify special indexing or hierarchy depending on the defined category. All sections are optional except the first case-insensitive section header which, must be [Server Technology INI Configuration].

- Configuration properties are defined by a case-insensitive label followed by a ':' or '=' separator. Spaces and tabs surrounding the separator are ignored. Property labels are optional and may contain spaces.

- Configuration values are optional and follow the configuration property separator. Values may contain spaces, and are generally case insensitive unless the defined property requires it.

- Configuration values may be encapsulated within "double quotes" when the value requires preceding spaces, trailing spaces, or the value includes double quotes. Both double quotes and backslash must be escape encoded as \\ and \" when encapsulated between double quotes.

- Special repetitive properties are defined in certain sections to accommodate values that might not fit on a single line (such as banners and lists). In these cases, if any cumulative buffer or line limit is exceeded, the property changes will not be honored. These properties will be specifically defined in a section if they apply.

## Security

Legal restrictions require Server Technology to enforce certain data access restrictions when a new / factory reset PDU is provided to a customer with a default administrator and password. In this mode, STIC downloads are disabled and uploads are honored only if the default administrator or password changes. Once this occurs, the system will allow normal STIC R/W access.

**Key: Blue** = New additions, DEP = Deprecated section or property, **SRP** = special repetitive property, **WO** = Write-only

## Section Property/Value Summary

| [Section] / Property | Type/Value | Min | Max | R Ver | W Ver |
|---|---|---|---|---|---|
| [Server Technology INI Configuration] | [<string>] (**REQUIRED**) | --- | --- | 2.00 | 2.00 |
| nic serial number: | <integer> | 1 (0) | 10 (2^32-1) | 2.00 | 2.00 |
| restart | auto \| no \| yes | fixed | fixed | 2.12 | 2.12 |
| [access] | [<string>] | --- | --- | 2.10 | 2.10 |
| access method: … … | ldap only \| ldap then local \| local only \| radius only \| radius then local \| tacacs only \| tacacs then local | fixed | fixed | 2.10 | 2.10 |
| configuration reset button: | disabled \| enabled | fixed | fixed | 2.10 | 2.10 |
| default log order: | newest first \| oldest first | fixed | fixed | 2.11 | 2.11 |
| local administrator account: | optional \| required | fixed | fixed | 2.11 | 2.11 |
| startup stick: | disabled \| enabled | fixed | fixed | 2.10 | 2.10 |
| strong passwords: | disabled \| enabled | fixed | fixed | 2.10 | 2.10 |
| [adc sensor] | [<string>] | --- | --- | 2.11 | 2.10 |
| id: | <adc id string> | 2 | 2 | 2.11 | 2.10 |
| name: | <string, no space> | 0 | 32 | 2.11 | 2.10 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| thresholds: | <csv threshold list> | 7 (0,0,0,0) | 15 (255,255,255,255) | 2.11 | 2.11 |
| [adc sensor global] | [<string>] | --- | --- | 2.11 | 2.11 |
| hysteresis: | <integer> | 1 (1) | 2 (20 counts) | 2.11 | 2.11 |
| [banner] | [<string>] | --- | --- | 2.10 | 2.10 |
| line: **(SRP)** | <string> | 0 | line limit (2070 total) | 2.10 | 2.10 |
| action: | modify | fixed | fixed | 2.10 | 2.10 |
| [bluetooth] | [<string>] | --- | --- | 2.10 | 2.10 |
| discoverability: | disabled \| enabled \| limited | fixed | fixed | 2.10 | 2.10 |
| feature: | disabled \| enabled | fixed | fixed | 2.10 | 2.10 |
| name: | <string>] | 1 | 31 | 2.10 | 2.10 |
| pin: | <integer> | 1 (0) | 4 (9999) | 2.10 | 2.10 |
| transmission power: | <integer> | 1 (4) | 2 (-6 dbm) | 2.10 | 2.10 |
| [branch] | [<string>] | --- | --- | 2.11 | 2.11 |
| id: | <branch id string> | 3 | 4 | 2.11 | 2.11 |
| current thresholds: | <csv threshold list> | 7 (0,0,0,0) | ? (max branch A) | 2.11 | 2.11 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| [branch global] | [<string>] | --- | --- | 2.11 | 2.11 |
| current hysteresis: | <float> | 1 (0) | 4 (10.0 A) | 2.11 | 2.11 |

# Server Technology INI Configuration (STIC) File Format

| [Section] / Property | Type/Value | Min | Max | R Ver | W Ver+ |
|---|---|---|---|---|---|
| [cli] | [<string>] | --- | --- | 2.00 | 2.00 |
| custom prompt: | <string>] | 0 | 32 | 2.10 | 2.10 |
| session timeout: | <integer> | 1 (1) | 4 (1440 minutes) | 2.10 | 2.10 |
| ssh: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| ssh port: | <integer> | 1 (1) | 5 (65535) | 2.00 | 2.00 |
| ssh authentication method: … | keyboard and password \| keyboard only \| password only | fixed | fixed | 2.00 | 2.00 |
| telnet: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| telnet port: | <integer> | 1 (1) | 5 (65535) | 2.00 | 2.00 |
| [contact sensor] | [<string>] | --- | --- | 2.11 | 2.10 |
| id: | <contact sensor id string> | 2 | 2 | 2.11 | 2.10 |
| name: | <string, no space> | 0 | 32 | 2.11 | 2.10 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| [cord] | [<string>] | --- | --- | 2.11 | 2.10 |
| id: | <cord id string> | 2 | 2 | 2.11 | 2.10 |
| name: | <string, no space> | 0 | 32 | 2.11 | 2.10 |
| 3-phase out-of-balance thresholds: | <csv threshold list> | 3 (0,0) | 7 (200,200) | 2.11 | 2.11 |
| apparent power thresholds: | <csv threshold list> | 7 (0,0,0,0) | ? (max cord VA) | 2.11 | 2.11 |
| current capacity: | <integer> | 1 (1) | 3 (max cord A) | 2.11 | 2.11 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| nominal power factor: | <float> | 1 (0) | 4 (1.00) | 2.11 | 2.11 |
| nominal voltage: | <integer> | 3 (min cord V) | 3 (max cord V) | 2.11 | 2.11 |
| power factor thresholds: | <csv threshold list> | 3 (0,0) | 9 (1.00,1.00) | 2.11 | 2.11 |
| power thresholds: | <csv threshold list> | 7 (0,0,0,0) | ? (max cord W) | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| [cord global] | [<string>] | --- | --- | 2.11 | 2.11 |
| 3-phase out-of-balance hysteresis: | <integer> | 1 (0) | 4 (200 %) | 2.11 | 2.11 |
| apparent power hysteresis: | <integer> | 1 (0) | 4 (1000 VA) | 2.11 | 2.11 |
| power factor hysteresis: | <float> | 1 (0) | 4 (1.00) | 2.11 | 2.11 |
| power hysteresis: | <integer> | 1 (0) | 4 (1000 W) | 2.11 | 2.11 |
| [data trending] | [<string>] | --- | --- | 2.11 | 2.11 |
| feature: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| [email] | [<string>] | --- | --- | 2.00 | 2.00 |
| from address: | <string, no space> | 0 | 48 | 2.00 | 2.00 |
| log authentication messages: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| log configuration messages: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| log event messages: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| log power messages: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| notifications: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| primary to address: | <string, no space> | 0 | 48 | 2.00 | 2.00 |
| secondary to address: | <string, no space> | 0 | 48 | 2.00 | 2.00 |
| smtp authentication method: … | any \| cram-md5 \| digest-md5 \| login \| plain \| none | fixed | fixed | 2.00 | 2.00 |
| smtp authenticate with: | from address \| username | fixed | fixed | 2.00 | 2.00 |
| smtp host: | <string, no space> | 0 | 63 | 2.00 | 2.00 |
| smtp password: **(WO)** | <string> | 0 | 32 | --- | 2.00 |
| smtp password secure: | <hex> | 0 or | 64 | 2.00 | 2.00 |
| smtp port: | <integer> | 1 (1) | 5 (65535) | 2.00 | 2.00 |
| smtp username: | <string, no space> | 0 | 32 | 2.00 | 2.00 |
| subject id: | location \| system id | fixed | fixed | 2.00 | 2.00 |
| trend file attachments: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |

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| [Section] / Property | Type/Value | Min | Max | R Ver | W Ver+ |
|---|---|---|---|---|---|
| [fan sensor] | [<string>] | --- | --- | 2.13 | 2.13 |
| | | | | | |
| id: | <fan sensor id string> | 2 | 2 | 2.13 | 2.13 |
| name: | <string, no space> | 0 | 32 | 2.13 | 2.13 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.13 | 2.13 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.13 | 2.13 |
| thresholds: | <csv threshold list> | 7 (0,0,0,0) | 23 (15300 RPM) | 2.13 | 2.13 |
| | | | | | |
| [fan sensor global] | [<string>] | --- | --- | 2.13 | 2.13 |
| | | | | | |
| hysteresis: | <integer> | 1 (0) | 4 (1200 RPM) | 2.13 | 2.13 |
| | | | | | |
| [ftp] | [<string>] | --- | --- | 2.00 | 2.00 |
| | | | | | |
| client automatic updates: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| client update directory: | <string> | 0 | 64 | 2.00 | 2.00 |
| client update filename: | <string> | 0 | 32 | 2.00 | 2.00 |
| client update host: | <string, no space> | 0 | 63 | 2.00 | 2.00 |
| client update password:      **(WO)** | <string> | 0 | 32 | --- | 2.00 |
| client update password secure: | <hex> | 0 or | 64 | 2.00 | 2.00 |
| client update scheduled day: … … | sunday \| monday \| tuesday \| wednesday \| thursday \| friday \| saturday \| everyday | fixed | fixed | 2.00 | 2.00 |
| client update scheduled hour: … … … … | 12 am \| 1 am \| 2 am \| 3am \| 4 am \| 6 am \| 7 am \| 8 am \| 9 am \| 10 am \| 11 am \| 12 pm \| 1 pm \| 2 pm \| 3 pm \| 4 pm \| 5 pm \| 6 pm \| 7 pm \| 8 pm \| 9 pm \| 10 pm \| 11 pm | fixed | fixed | 2.00 | 2.00 |
| client update username: | <string> | 0 | 32 | 2.00 | 2.00 |
| server: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| | | | | | |
| [group] | [<string>] | --- | --- | 2.11 | 2.10 |
| | | | | | |
| name: | <string, no space> | 1 | 32 | 2.11 | 2.10 |
| outlet access list: | <csv outlet id list> | 0 | line limit | 2.11 | 2.10 |
| action: | modify \| create \| delete \| update | fixed | fixed | 2.11 | 2.10 |
| | | | | | |
| [humidity sensor] | [<string>] | --- | --- | 2.11 | 2.10 |
| | | | | | |
| id: | <humidity sensor id string> | 2 | 2 | 2.11 | 2.10 |
| name: | <string, no space> | 0 | 32 | 2.11 | 2.10 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| thresholds: | <csv threshold list> | 7 (0,0,0,0) | 15 (100,100,100,100) | 2.11 | 2.11 |
| | | | | | |
| [humidity sensor global] | [<string>] | --- | --- | 2.11 | 2.11 |
| | | | | | |
| hysteresis: | <integer> | 1 (0) | 2 (20 %RH) | 2.11 | 2.11 |
| | | | | | |
| [ldap] | [<string>] | --- | --- | 2.10 | 2.10 |
| | | | | | |
| bind type: | md5 \| simple \| tls | fixed | fixed | 2.10 | 2.10 |
| group membership attribute: | <string>] | 0 | 30 | 2.10 | 2.10 |
| group search: | disabled \| enabled | fixed | fixed | 2.10 | 2.10 |
| group search base distinguished name: | <string> | 0 | 100 | 2.10 | 2.10 |
| port: | <integer> | 1 (1) | 5 (65535) | 2.10 | 2.10 |
| primary host: | <string, no space> | 0 | 63 | 2.10 | 2.10 |
| search bind distinguished name: | <string> | 0 | 124 | 2.10 | 2.10 |
| search bind password:      **(WO)** | <string> | 0 | 32 (V2.15) | --- | 2.10 |
| search bind password secure: | <hex> | 0 or | 64 | 2.10 | 2.10 |
| secondary host: | <string, no space> | 0 | 63 | 2.10 | 2.10 |
| user membership attribute: | <string> | 0 | 61 | 2.10 | 2.10 |
| user search base distinguished name: | <string> | 0 | 100 | 2.10 | 2.10 |
| user search filter: | <string> | 0 | 100 | 2.10 | 2.10 |

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| [Section] / Property | Type/Value | Min | Max | R Ver | W Ver+ |
|---|---|---|---|---|---|
| [line] | [<string>] | --- | --- | 2.11 | 2.11 |
| | | | | | |
| id: | <line id string> | 3 | 3 | 2.11 | 2.11 |
| current thresholds: | <csv threshold list> | 7 (0,0,0,0) | ? (max line A) | 2.11 | 2.11 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| | | | | | |
| [line global] | [<string>] | --- | --- | 2.11 | 2.11 |
| | | | | | |
| current hysteresis: | <float> | 1 (0) | 4 (10.0 A) | 2.11 | 2.11 |
| | | | | | |
| [lldp] | [<string>] | --- | --- | 2.17 | 2.17 |
| | | | | | |
| feature: | disabled \| enabled | fixed | fixed | 2.17 | 2.17 |
| transmit interval: | <integer> | 1 (5) | 5 (32768 seconds) | 2.17 | 2.17 |
| | | | | | |
| [network] | [<string>] | --- | --- | 2.00 | 2.00 |
| | | | | | |
| dhcp: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| dhcp boot delay: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| dhcp fqdn: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| dhcp fqdn name: | <string, no space> | 0 | 63 | 2.00 | 2.00 |
| dhcp static address fallback: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| network mode: | disabled \| dual ipv6/ipv4 \| ipv4 only | fixed | fixed | 2.00 | 2.00 |
| static ipv4 address: | <ipv4 string> | 7 | 15 | 2.00 | 2.00 |
| static ipv4 subnet mask: | <ipv4 string> | 7 | 15 | 2.00 | 2.00 |
| static ipv4 gateway: | <ipv4 string> | 7 | 15 | 2.00 | 2.00 |
| static ipv6 address: | <ipv6 string> | 2 | 45 | 2.00 | 2.00 |
| static ipv6 gateway: | <ipv6 string> | 2 | 45 | 2.00 | 2.00 |
| static ipv6 prefix: | <cidr string> | 1 (/0) | 4 (/128) | 2.00 | 2.00 |
| static primary dns: | <ipv4 / ipv6 string> | 2 | 45 | 2.00 | 2.00 |
| static secondary dns: | <ipv4 / ipv6 string> | 2 | 45 | 2.00 | 2.00 |
| zero touch provisioning | disabled \| enabled | fixed | fixed | 2.12 | 2.12 |
| | | | | | |
| [outlet] | [<string>] | --- | --- | 2.11 | 2.10 |
| | | | | | |
| id: | <outlet id string> | 3 | 5 | 2.11 | 2.10 |
| name: | <string, no space> | 0 | 32 | 2.11 | 2.10 |
| control lock: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| current thresholds: | <csv threshold list> | 7 (0,0,0,0) | ? (max outlet A) | 2.11 | 2.11 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| extra on delay: | <integer> | 1 (0) | 3 (900 seconds) | 2.11 | 2.11 |
| host: | <string, no space> | 0 | 63 | 2.11 | 2.11 |
| power factor thresholds: | <csv threshold list> | 3 (0,0) | 9 (1.00,1.00) | 2.11 | 2.11 |
| power thresholds: | <csv threshold list> | 7 (0,0,0,0) | ? (max outlet W) | 2.11 | 2.11 |
| script feature: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| script delay: | <integer> | 1 (1) | 2 (15 minutes) | 2.11 | 2.11 |
| shutdown feature: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| shutdown delay: | <integer> | 2 (30) | 3 (900 seconds) | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| socket adapter: | none \| C13 \| C19 | fixed | fixed | 2.16 | 2.16 |
| wakeup state: | last \| off \| on | fixed | fixed | 2.11 | 2.11 |
| | | | | | |
| [outlet global] | [<string>] | --- | --- | 2.11 | 2.11 |
| | | | | | |
| change logging: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| current hysteresis: | <float> | 1 (0) | 4 (10.0 A) | 2.11 | 2.11 |
| power factor hysteresis: | <float> | 1 (0) | 4 (1.00) | 2.11 | 2.11 |
| power hysteresis: | <integer> | 1 (0) | 4 (1000 W) | 2.11 | 2.11 |
| reboot delay: | <integer> | 1 (5) | 3 (600 seconds) | 2.11 | 2.11 |
| sequence interval: | <integer> | 1 (0) | 2 (15 seconds) | 2.11 | 2.11 |
| | | | | | |
| [over current protector] | [<string>] | --- | --- | 2.11 | 2.11 |
| | | | | | |
| id: | <ocp id string> | 3 | 4 | 2.11 | 2.11 |
| current capacity: | <integer> | 1 (1) | 3 (max OCP A) | 2.11 | 2.11 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |

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| [Section] / Property | Type/Value | Min | Max | R Ver | W Ver+ |
|---|---|---|---|---|---|
| [phase] | [<string>] | --- | --- | 2.11 | 2.11 |
| | | | | | |
| id: | <phase id string> | 3 | 3 | 2.11 | 2.11 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| power factor thresholds: | <csv threshold list> | 3 (0,0) | 9 (1.00,1.00) | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| voltage thresholds: | <csv threshold list> | 7 (min phase V) | ? (max phase V) | 2.11 | 2.11 |
| | | | | | |
| [phase global] | [<string>] | --- | --- | 2.11 | 2.11 |
| | | | | | |
| power factor hysteresis: | <float> | 1 (0) | 4 (1.00) | 2.11 | 2.11 |
| voltage hysteresis: | <float> | 1 (0) | 4 (20.0 V) | 2.11 | 2.11 |
| | | | | | |
| [port] | [<string>] | --- | --- | 2.11 | 2.11 |
| | | | | | |
| id: | <port id string> | 4 | 4 | 2.11 | 2.11 |
| baud: | 1200 \| 2400 \| 4800 \| 9600 \| 19200 \| 38400 \| 57600 \| 115200 | fixed | fixed | 2.11 | 2.11 |
| … | | | | | |
| dsr check: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| remote connection timeout: | <integer> | 1 (0) | 5 (60 minutes) | 2.11 | 2.11 |
| rftag support | disabled \| enabled | fixed | fixed | 2.13 | 2.13 |
| | | | | | |
| [radius] | [<string>] | --- | --- | 2.10 | 2.10 |
| | | | | | |
| primary server: | <string, no space> | 0 | 63 | 2.10 | 2.10 |
| primary server port: | <integer> | 1 (1) | 5 (65535) | 2.10 | 2.10 |
| primary server retries: | <integer> | 1 (0) | 2 (10) | 2.10 | 2.10 |
| primary server shared secret: **(WO)** | <string> | 0 | 48 | --- | 2.10 |
| primary server shared secret secure: | <hex> | 0 or | 96 | 2.10 | 2.10 |
| primary server timeout: | <integer> | 1 (1) | 2 (30 seconds) | 2.10 | 2.10 |
| secondary server: | <string, no space> | 0 | 63 | 2.10 | 2.10 |
| secondary server port: | <integer> | 1 (1) | 5 (65535) | 2.10 | 2.10 |
| secondary server retries: | <integer> | 1 (0) | 2 (10) | 2.10 | 2.10 |
| secondary server shared secret: **(WO)** | <string> | 0 | 48 | --- | 2.10 |
| secondary server shared secret secure: | <hex> | 0 or | 96 | 2.10 | 2.10 |
| secondary server timeout: | <integer> | 1 (1) | 2 (30 seconds) | 2.10 | 2.10 |
| | | | | | |
| [snmp] | [<string>] | --- | --- | 2.00 | 2.00 |
| | | | | | |
| get community: | <string> | 0 | 32 | 2.00 | 2.00 |
| ip restrictions: | none \| trap destinations only | fixed | fixed | 2.00 | 2.00 |
| set community: | <string> | 0 | 32 | 2.00 | 2.00 |
| system contact: | <string> | 0 | 63 | 2.00 | 2.00 |
| system name: | <string> | 0 | 63 | 2.00 | 2.00 |
| trap community: | <string> | 0 | 32 | 2.00 | 2.00 |
| trap destination primary host: | <string, no space> | 0 | 63 | 2.00 | 2.00 |
| trap destination secondary host: | <string, no space> | 0 | 63 | 2.00 | 2.00 |
| trap error repeat time: | <integer> (seconds) | 1 (1) | 5 (65535) | 2.00 | 2.00 |
| trap format: | v1 \| v2c \| v3 | fixed | fixed | 2.00 | 2.00 |
| v2: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| v3: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| v3 read-only user auth method: **(DEP)** | md5 \| md5 with des \| none | fixed | fixed | 2.10-2.13 | 2.10-2.13 |
| v3 read-only user auth password: **(DEP)** | <string> | 0 | 39 | 2.10-2.13 | 2.10-2.13 |
| v3 read-only user auth password secure: **(DEP)** | <hex> | 0 or | 96 | 2.10-2.13 | 2.10-2.13 |
| v3 read-only user privacy password: **(DEP)** | <string> | 0 | 31 | 2.10-2.13 | 2.10-2.13 |
| v3 read-only user privacy password secure: **(DEP)** | <hex> | 0 or | 64 | 2.10-2.13 | 2.10-2.13 |
| v3 read-only username: **(DEP)** | <string> | 0 | 31 | 2.10-2.13 | 2.10-2.13 |
| v3 read-write user auth method: **(DEP)** | md5 \| md5 with des \| none | fixed | fixed | 2.10-2.13 | 2.10-2.13 |
| v3 read-write user auth password: **(DEP)** | <string> | 0 | 39 | 2.10-2.13 | 2.10-2.13 |
| v3 read-write user auth password secure: **(DEP)** | <hex> | 0 or | 96 | 2.10-2.13 | 2.10-2.13 |
| v3 read-write user privacy password: **(DEP)** | <string> | 0 | 31 | 2.10-2.13 | 2.10-2.13 |
| v3 read-write user privacy password scure: **(DEP)** | <hex> | 0 or | 64 | 2.10-2.13 | 2.10-2.13 |
| v3 read-write username: **(DEP)** | <string> | 0 | 31 | 2.10-2.13 | 2.10-2.13 |
| v3 trap username: | <string> | 0 | 31 | 2.00 | 2.00 |

| [Section] / Property | Type/Value | Min | Max | R Ver | W Ver+ |
|---|---|---|---|---|---|
| [snmpv3 user] | [<string>] | --- | --- | 2.14 | 2.14 |
| name: | <string> | 0 | 31 | 2.14 | 2.14 |
| access: | disabled \| enabled | fixed | fixed | 2.14 | 2.14 |
| auth method: | none \| md5 \| md5 with des \| | fixed | fixed | 2.14 | 2.14 |
| | md5 with aes \| sha \| sha with des \| sha with aes | | | 2.19 | 2.19 |
| auth password: **(WO)** | <string> | 0 | 39 | 2.14 | 2.14 |
| auth password secure: | <hex> | 0 or | 96 | 2.14 | 2.14 |
| privacy password: **(WO)** | <string> | 0 | 3115 | 2.14 | 2.14 |
| privacy password secure: | <hex> | 0 or | 64 | 2.14 | 2.14 |
| action: | create \| delete \| modify \| update | fixed | fixed | 2.14 | 2.14 |
| [sntp] | [<string>] | --- | --- | 2.00 | 2.00 |
| dst: | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| dst end time zone string: | <time zone string> | 11 | 15 | 2.00 | 2.00 |
| dst start time zone string: | <time zone string> | 11 | 15 | 2.00 | 2.00 |
| local gmt offset: | <gmt offset string> | 1 (-12:59) | 6 (+14:59) | 2.00 | 2.00 |
| primary host: | <string, no space> | 0 | 63 | 2.00 | 2.00 |
| secondary host: | <string, no space> | 0 | 63 | 2.00 | 2.00 |
| [syslog] | [<string>] | --- | --- | 2.00 | 2.00 |
| debug messaging: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| protocol: | fqdn \| system name | fixed | fixed | 2.18 | 2.18 |
| port: | <integer> | 1 (1) | 5 (65535) | 2.00 | 2.00 |
| primary host: | <string, no space> | 0 | 63 | 2.00 | 2.00 |
| protocol: | rfc3164 \| rfc5424 | fixed | fixed | 2.10 | 2.10 |
| secondary host: | <string, no space> | 0 | 63 | 2.00 | 2.00 |
| [system] | [<string>] | --- | --- | 2.00 | 2.00 |
| location: | <string> | 0 | 63 | 2.00 | 2.00 |
| [tacacs] | [<string>] | --- | --- | 2.10 | 2.10 |
| key: **(WO)** | <string> | 0 | 60 | --- | 2.10 |
| key secure: | <hex> | 0 or | 128 | 2.10 | 2.10 |
| port: | <integer> | 1 (1) | 5 (65535) | 2.10 | 2.10 |
| primary host: | <string, no space> | 0 | 63 | 2.10 | 2.10 |
| secondary host: | <string, no space> | 0 | 63 | 2.10 | 2.10 |
| [temperature sensor] | [<string>] | --- | --- | 2.11 | 2.10 |
| id: | <temperature sensor id string> | 2 | 2 | 2.11 | 2.10 |
| name: | <string, no space> | 0 | 32 | 2.11 | 2.10 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| thresholds celsius: | <csv threshold list> | 7 (min temp C) | ? (max temp C) | 2.11 | 2.11 |
| thresholds fahrenheit: | <csv threshold list> | 7 (min temp F) | ? (max temp F) | 2.11 | 2.11 |
| [temperature sensor global] | [<string>] | --- | --- | 2.11 | 2.11 |
| hysteresis celsius: | <integer> | 1 (0) | 4 (30 °C) | 2.11 | 2.11 |
| hysteresis fahrenheit: | <integer> | 1 (0) | 4 (54 °F) | 2.11 | 2.11 |
| scale: | celsius \| fahrenheit | fixed | fixed | 2.11 | 2.11 |
| [unit] | [<string>] | --- | --- | 2.11 | 2.10 |
| id: | <unit id string> | 1 | 1 | 2.11 | 2.10 |
| name: | <string, no space> | 0 | 32 | 2.11 | 2.10 |
| asset tag: | <string> | 0 | 32 | 2.11 | 2.11 |
| display orientation: | auto \| inverted \| normal | fixed | fixed | 2.11 | 2.11 |
| email notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| outlet display order: | normal \| reversed | fixes | fixes | 2.13 | 2.13 |
| outlet sequence: | normal \| reversed | fixed | fixed | 2.11 | 2.11 |
| snmp trap notifications: | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |

# Server Technology INI Configuration (STIC) File Format

| [Section] / Property | | Type/Value | Min | Max | R Ver | W Ver+ |
|---|---|---|---|---|---|---|
| [user] | | [<string>] | --- | --- | 2.11 | 2.00 |
| | | | | | | |
| ldap group name: | | <string, no space> | 1 | 32 | 2.11 | 2.10 |
| tacacs privilege level: | | <integer> | 1 (0) | 2 (15) | 2.11 | 2.10 |
| username: | | <string, no space> | 1 | 32 | 2.11 | 2.00 |
| access level | | admin \| on only \| power user \| | fixed | fixed | 2.11 | 2.10 |
| … | | reboot only \| user \| view only | | | | |
| group access list: | | <csv list, no space> | 0 | line limit | 2.11 | 2.10 |
| outlet access list: | | <csv outlet id list> | 0 | line limit | 2.11 | 2.10 |
| password: | **(WO)** | <string> | 1 | 32 | --- | 2.00 |
| password secure: | | <hex> | 64 | 64 | 2.11 | 2.00 |
| remote port access list: | | <csv port id list> | 0 | line limit | 2.11 | 2.10 |
| system monitor access: | | disabled \| enabled | fixed | fixed | 2.11 | 2.10 |
| action: | | modify \| | fixed | fixed | 2.11 | 2.00 |
| … | | create \| delete \| update | fixed | fixed | 2.11 | 2.10 |
| | | | | | | |
| [water sensor] | | [<string>] | --- | --- | 2.11 | 2.10 |
| | | | | | | |
| id: | | <water sensor id string> | 1 | 1 | 2.11 | 2.10 |
| name: | | <string, no space> | 0 | 32 | 2.11 | 2.10 |
| email notifications: | | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| snmp trap notifications: | | disabled \| enabled | fixed | fixed | 2.11 | 2.11 |
| | | | | | | |
| [web] | | [<string>] | --- | --- | 2.00 | 2.00 |
| | | | | | | |
| http: | | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| http port: | | <integer> | 1 (1) | 5 (65535) | 2.00 | 2.00 |
| https: | | disabled \| enabled | fixed | fixed | 2.00 | 2.00 |
| https port: | | <integer> | 1 (1) | 5 (65535) | 2.00 | 2.00 |
| log entries per page: | | <integer> | 2 (10) | 3 (250) | 2.11 | 2.11 |
| session timeout: | | <integer> | 1 (1) | 4 (1440 minutes) | 2.10 | 2.10 |
| spm password reset: | | yes \| no | fixed | fixed | --- | 2.10 |
| spm secure access: | | disabled \| enabled | fixed | fixed | 2.10 | 2.10 |
| json api web service | | disabled \| enabled | fixed | fixed | 2.16 | 2.16 |
| | | | | | | |
| [wlan] | | [<string>] | --- | --- | 2.10 | 2.10 |
| | | | | | | |
| bssid: | | <MAC string> | 0 or | 17 | 2.10 | 2.10 |
| feature: | | disabled \| enabled | fixed | fixed | 2.10 | 2.10 |
| key: | **(WO)** | <string> | 0 | 63 | --- | 2.10 |
| key secure: | | <hex> | 0 or | 128 | 2.10 | 2.10 |
| security: | | open \| wep open key \| wep shared key | fixed | fixed | 2.10 | 2.10 |
| … | | wpa-psk aes \| wpa-psk tkip \| | | | | |
| … | | wpa-psk tkip+aes \| wpa2-psk aes \| | | | | |
| … | | wpa2-psk tkip \| wpa2-psk tkip+aes | | | | |
| ssid: | | <string> | 0 | 31 | 2.10 | 2.10 |
| | | | | | | |
| [ztp] | | [<string>] | --- | --- | 2.12 | 2.12 |
| | | | | | | |
| automatic updates: | | disabled \| enabled | fixed | fixed | 2.13 | 2.13 |
| state reset: | | yes \| no | fixed | fixed | 2.12 | 2.12 |
| update scheduled day: | | sunday \| monday \| tuesday \| | fixed | fixed | 2.13 | 2.13 |
| … | | wednesday \| thursday \| friday \| | | | | |
| … | | saturday \| everyday | | | | |
| update scheduled hour: | | 12 am \| 1 am \| 2 am \| 3am \| 4 am \| | fixed | fixed | 2.13 | 2.13 |
| … | | 6 am \| 7 am \| 8 am \| 9 am \| 10 am \| | | | | |
| … | | 11 am \| 12 pm \| 1 pm \| 2 pm \| 3 pm \| | | | | |
| … | | 4 pm \| 5 pm \| 6 pm \| 7 pm \| 8 pm \| | | | | |
| … | | 9 pm \| 10 pm \| 11 pm | | | | |

## Section and Property/Value Definitions

Most sections are optional, repeatable, and may occur in any order, unless otherwise stated. If duplicate sections are repeated, the last of any duplicate properties will be honored. Section names, property names, and values are case insensitive, unless otherwise specified. Literal values are specified in bold.  Special values are indicated in **<>** carats and are described in more detail per definition.  All strings are defined as printable ASCII unless otherwise noted

**[Server Technology INI Configuration]**                                           V2.00

> This **Mandatory** section defines system identification and action requests and **MUST** be the first section in the file.  If specific identification information is provided, and it does not match the NIC card, then the STIC file will be ignored. If no identification information is provided, then the entire STIC file is honored as a template, including system specific settings.  It is the intention of this protocol that specific sections not be included in template based configuration.  This section also defines post-action behavior, such as restart upon completion.

**nic serial number:**                        **<integer, 0 to 4294967295>**          V2.00

> This property is used to determine if the STIC file is intended to be used on a specific NIC card.  If this value does not match the NIC card serial number, then this file will be rejected. If this property is blank or unspecified, the STIC file is considered a template, and all relevant settings will be applied.

**restart:**                                            **auto**                              V2.12
                                                        **no**                                V2.12
                                                        **yes**                               V2.12

> This property determines how STIC interfaces (i.e. WEB, FTP, SUS) should handle restarts when a STIC file has been processed.  If "yes" is specified, the interface will restart regardless of whether the NIC card requires it.  If "no" is specified, the interface will not restart even if the NIC card requires it. The default setting is "auto" which means the interface chooses what restart action should be taken. Below is a list of automatic restart behaviors for each STIC interface:

> | Interface | Automatic restart behavior |
> |-----------|----------------------------|
> | SFTP | Automatically restarts on exit if NIC card requires it |
> | FTP | Automatically restarts on exit if NIC card requires it |
> | HTTPS | Does not restart, but displays restart required if needed |
> | HTTP | Does not restart, but displays restart required if needed |
> | SUS | Automatically restarts on completion if NIC card requires it |

## [access]                                                                      V2.10

This section defines user access settings for the PDU.

**access method:**                        **ldap only**                          V2.10
                                          **ldap then local**                    V2.10
                                          **local only**                         V2.10
                                          **radius then local**                  V2.10
                                          **radius only**                        V2.10
                                          **tacacs then local**                  V2.10
                                          **tacacs only**                        V2.10

   This property sets the desired system access method.

**configuration reset button:**           **disabled**                           V2.10
                                          **enabled**                            V2.10

   This property enables or disables access to the configuration reset button.
   Setting this to disabled forces **local administrator account** to be required.  If
   there are no local administrators accounts present then this is forced to enabled
   to allow system recovery.

**default log order:**                     **newest first**                       V2.11
                                          **oldest first**                       V2.11

   This property enables or disables access to the configuration reset button.

**local administrator account:**           **optional**                           V2.11
                                          **required**                           V2.11

   This property removes the restriction to delete the last local admin when set to
   optional   Setting this to optional forces **configuration reset button** to be
   enabled to allow system recovery.

**startup stick:**                         **disabled**                           V2.10
                                          **enabled**                            V2.10

   This property enables or disables Start Up Stick access.

**strong passwords:**                      **disabled**                           V2.10
                                          **enabled**                            V2.10

   This property enables or disables strong password requirements.

## [adc sensor] V2.10

This section defines specific ADC sensor settings for the PDU. This section is readable only if ADC sensors are present.

**id:** **<adc sensor id string [2]>** V2.10

This property sets the current ADC sensor object to perform operations on and remains persistent within a section. The value is a valid 2 character ADC sensor ID in the form of <unit id><sensor number>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**name:** **<string, no space [0..32]>** V2.10

This property sets the name of the currently selected ADC sensor in the section. The value is a valid string with no spaces from 0 to 32 characters.  The value cannot be ALL, a duplicate ADC sensor name or a reserved ADC sensor ID.  The value may be blank.

**email notifications:** **disabled** V2.11
**enabled** V2.11

This property enables or disables email notifications for the currently selected ADC sensor in the section.

**snmp trap notifications:** **disabled** V2.11
**enabled** V2.11

This property enables or disables SNMP trap notifications for the currently selected ADC sensor in the section.

**thresholds:** **<csv threshold list>** V2.11

This property sets the threshold list for the currently selected ADC sensor. The value is a comma separated ADC threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>.  Each value is an integer level that ranges from 0 to 255.  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms.

## [adc sensor global] V2.11

This section defines global ADC sensor settings for the PDU. This section is readable only if ADC sensors are present.

**hysteresis:** **<integer, 0 to 20>** V2.11

This property sets the global ADC sensor hysteresis. The value is an integer that ranges from 0 to 20 (counts).

## [banner]                                                                      V2.10

This section defines the PDU login banner.

**line:**                                      **<string, >**                    V2.10

This special repetitive property appends line data to the current banner. The value is a string up to the maximum STIC line length and may require encapsulated quotes. A CRLF is inserted between each repeated line property. The cumulative stored character total for a banner must not exceed 2070 characters.

**action:**                                    **modify**                        V2.10

This property saves the currently defined banner in the section. The banner will be set to blank If no line was specified prior to the action command. After the action has occurred, the currently defined banner in the section will be reset.

   o  **modify** – make changes to the current banner.

## [bluetooth]                                                                   V2.10

This section defines the STI's 3rd Eye Bluetooth settings for the PDU.

**discoverability:**                           **disabled**                      V2.10
                                               **limited**                       V2.10
                                               **enabled**                       V2.10

This property sets the Bluetooth module discoverability.
**feature:**                                   **disabled**                      V2.10
                                               **enabled**                       V2.10

This property enables or disables the Bluetooth module if present.

**name:**                                      **<string [1..31]>**              V2.10

This property sets the Bluetooth module name. The value is a valid string from 1 to 31 characters.

**pin:**                                       **<integer, 0000 to 9999>**       V2.10

This property sets the Bluetooth module pin. The value is an integer that ranges from 0000 to 9999.

**transmission power:**　　　　　　　**<integer, -6 to 4>**　　　　　V2.10

This property sets the Bluetooth module transmission power. The value is an integer that ranges from -6 to 4 (dBm).

## [branch]　　　　　　　　　　　　　　　　　　　　　　　　V2.11

This section defines specific branch settings for the PDU. This section is readable only if branches are present.

**id:**　　　　　　　　　　　　　　**<branch id string [3..4]>**　　　V2.11

This property sets the current branch object to perform operations on and remains persistent within a section. The value is a valid 3 to 4 character branch ID in the form of <unit id><cord id><branch number>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**current thresholds:**　　　　　　　**<csv threshold list>**　　　　V2.11

This property sets the current threshold list for the currently selected branch. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>.  Each value is a floating point value that ranges from 0.0 to the maximum rated branch current in tenth (Amp) increments. Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if branch current sensing is present.

**email notifications:**　　　　　　　**disabled**　　　　　　　　V2.11
　　　　　　　　　　　　　　　　　**enabled**　　　　　　　　V2.11

This property enables or disables email notifications for the currently selected branch in the section.

**snmp trap notifications:**　　　　　**disabled**　　　　　　　　V2.11
　　　　　　　　　　　　　　　　　**enabled**　　　　　　　　V2.11

This property enables or disables SNMP trap notifications for the currently selected branch in the section.

## [branch global]　　　　　　　　　　　　　　　　　　　　　　V2.11

This section defines global branch settings for the PDU.  This section is readable only if branches are present.

**current hysteresis:**         **<float, 0.0 to 10.0>**         V2.11

        This property sets the global branch current hysteresis. The value is floating point and ranges from 0.0 to 10.0 in tenth (Amp) increments. This property is available only if branch current sensing is present.

**[cli]**         V2.00

This section defines Command Line Interface (CLI) settings for the PDU, including Secure Shell (SSH) and Telnet.

**custom prompt:**         **<string [0..32]>**         V2.10

        This property sets the custom CLI prompt. The value is a valid string from 0 to 32 characters. The default prompt will be used if this is blank.

**session timeout:**         **<integer, 1 to 1440>**         V2.10

        This property sets the idle CLI session time out. The value is an integer that ranges from 1 to 1440 (minutes).

**ssh:**         **disabled**         V2.00
        **enabled**         V2.00

        This property enables or disables Secure Shell (SSH). A change to this property requires a restart.

**ssh authentication method:**         **keyboard and password**         V2.00
        **keyboard only**         V2.00
        **password only**         V2.00

        This property sets the desired SSH authentication method.

**ssh port:**         **<integer, 1 to 65535>**         V2.00

        This property sets the SSH port. The value is an integer that ranges from 1 to 65535.  A change to this property requires a restart if SSH is enabled.

**telnet:**         **disabled**         V2.00
        **enabled**         V2.00

        This property enables or disables Telnet. A change to this property requires a restart.

**telnet port:**                           **<integer, 1 to 65535>**         V2.00

> This property sets the Telnet port. The value is an integer that ranges from 1 to 65535.  A change to this property requires a restart if Telnet is enabled.

**[contact sensor]**                                          V2.10

This section defines specific contact sensor settings for the PDU. This section is readable only if contact sensors are present.

**id:**                               **<contact sensor id string [2]>**     V2.10

> This property sets the current contact sensor object to perform operations on and remains persistent within a section. The value is a valid 2 character contact sensor ID in the form of <unit id><sensor id>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**name:**                          **<string, no space [0..32]>**      V2.10

> This property sets the name of the currently selected contact sensor in the section. The value is a valid string with no spaces from 0 to 32 characters.  The value cannot be ALL, a duplicate contact sensor name or a reserved contact sensor ID.  The value may be blank.

**email notifications:**                  **disabled**                   V2.11
                                               **enabled**                    V2.11

> This property enables or disables email notifications for the currently selected contact sensor in the section.

**snmp trap notifications:**             **disabled**                   V2.11
                                               **enabled**                    V2.11

> This property enables or disables SNMP trap notifications for the currently selected contact sensor in the section.

**[cord]**                                                       V2.10

This section defines specific cord settings for the PDU. This section is readable only if cords are present.

**id:**                               **<cord id string [2]>**             V2.10

        

This property sets the current cord object to perform operations on and remains persistent within a section. The value is a valid 2 character cord ID in the form of <unit id><cord id>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**name:**                                        **<string, no space [0..32]>**          V2.10

This property sets the name of the currently selected cord in the section. The value is a valid string with no spaces from 0 to 32 characters.  The value cannot be ALL, a duplicate cord name or a reserved cord ID.  The value may be blank.

**3-phase out-of-balance thresholds:**    **<csv threshold list>**          V2.11

This property sets the 3-phase out-of-balance threshold list for the currently selected cord. The value is a comma separated current threshold list in the format <high warning>,<high alarm>.  Each value is an integer that ranges from 0 to 200 (percent).  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if 3-phase AC cord current sensing is present.

**apparent power thresholds:**            **<csv threshold list>**          V2.11

This property sets the apparent power threshold list for the currently selected cord. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>.  Each value is an integer that ranges from 0 to the maximum rated cord apparent power (VA).  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if AC cord power sensing is present.

**current capacity:**                        **<integer, 1 to max cord capacity>**     V2.11

This property sets the capacity for the currently selected cord in the section in order to compute threshold limits.   The value is an integer that ranges from 1 to the maximum rated cord (Amp) capacity.  The maximum capacity is unit specific and varies between models.

**email notifications:**                    **disabled**                            V2.11
                                            **enabled**                             V2.11

This property enables or disables email notifications for the currently selected cord in the section.

**nominal power factor:**                    **<float, 0.00 to 1.00>**              V2.11

This property sets the nominal power factor for the currently selected cord for legacy AC TRMS units to tune estimated power calculations. The value is a floating point number that ranges from 0.00 to 1.00 in hundredth increments. This property is available only if AC TRMS load sensing is present.

**nominal voltage:**                            **<integer, min to max cord voltage>**    V2.11

This property sets the nominal voltage for the currently selected cord in the section in order to compute threshold limits.   The value is an integer that ranges from the minimum rated cord voltage to the maximum rated cord voltage (Volts). These limits are unit specific and vary between models.

**power factor thresholds:**                    **<csv threshold list>**                V2.11

This property sets the power factor threshold list for the currently selected cord. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,  Each value is a floating point value that ranges from 0.00 to 1.00 in hundredth increments.  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if AC cord power sensing is present.

**power thresholds:**                           **<csv threshold list>**                V2.11

This property sets the power threshold list for the currently selected cord. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>.  Each value is an integer that ranges from 0 to the maximum rated cord power (Watts).  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if cord power sensing is present.

**snmp trap notifications:**               **disabled**                              V2.11
                                           **enabled**                               V2.11

This property enables or disables SNMP trap notifications for the currently selected cord in the section.

## [cord global]                                                                      V2.11

This section defines global cord settings for the PDU.  This section is readable only if cords are present.

**3-phase out-of-balance hysteresis:**    **<integer, 0 to 200>**                    V2.11

This property sets the global cord current hysteresis. The value is an integer that ranges from 0 to 200 (percent). This property is available only if 3-phase AC cord current sensing is present.

**apparent power hysteresis:**       **<integer, 0 to 1000>**       V2.11

This property sets the global cord apparent power hysteresis. The value is an integer that ranges from 0 to 1000 (VA). This property is available only if AC cord power sensing is present.

**power factor hysteresis:**       **<float, 0.00 to 1.00>**       V2.11

This property sets the global cord power factor hysteresis. The value is floating point and ranges from 0.00 to 1.00 in hundredth increments. This property is available only if AC cord power sensing is present.

**power hysteresis:**       **<integer, 0 to 1000>**       V2.11

This property sets the global cord power hysteresis. The value is an integer that ranges from 0 to 1000 (Watts). This property is available only if cord power sensing is present.

## [data trending]       V2.11

This section defines data trending options for the PDU.

**feature:**       **disabled**       V2.11
      **enabled**       V2.11

This property enables or disables data trending.

## [email]       V2.00

This section defines email and Simple Mail transport Protocol (SMTP) settings for the PDU.

**from address:**       **<string [0..48]>**       V2.00

This property sets the email from address. The value is a valid string from 0 to 48 characters.

**log authentication messages:**       **disabled**       V2.00
      **enabled**       V2.00

This property enables or disables authentication log messages when email notifications are enabled.

      

**log configuration messages:**          **disabled**                    V2.00
                                         **enabled**                     V2.00

    This property enables or disables configuration log messages when email notifications are enabled.

**log event messages:**                  **disabled**                    V2.00
                                         **enabled**                     V2.00

    This property enables or disables event log messages when email notifications are enabled.

**log power messages:**                  **disabled**                    V2.00
                                         **enabled**                     V2.00

    This property enables or disables power change log messages when email notifications are enabled.

**notifications:**                       **disabled**                    V2.00
                                         **enabled**                     V2.00

    This property enables or disables log message notifications.

**primary to address:**                  **<string [0..48]>**            V2.00

    This property sets the email 'primary to' address. The value is a valid string from 0 to 48 characters.

**secondary to address:**                **<string [0..48]>**            V2.00

    This property sets the email 'secondary to' address. The value is a valid string from 0 to 48 characters.

**smtp authentication method:**          **any**                         V2.00
                                         **cram-md5**                    V2.00
                                         **digest-md5**                  V2.00
                                         **login**                       V2.00
                                         **plain**                       V2.00
                                         **none**                        V2.00

    This property sets the SMTP authentication method.

**smtp authenticate with:**              **from address**                V2.00
                                         **username**                    V2.00

This property sets the user string SMTP will authenticate with.

**smtp host:**                            **<string [0..63], no space>**      V2.00

This property sets the SMTP server host name. The value is a valid host name from 0 to 63 characters.

**smtp password:**                         **<string [0..32]>**         **(WO)** V2.00
**smtp password secure:**                **<hex [0 or 64]>**           V2.00

These properties set the SMTP server password. The plain text version is a **Write-Only** property whose value is a string from 0 to 32 characters that may require encapsulated quotes. The "secure" version is either a blank (empty) or 64 character AES256 encrypted hex string that can be read and re-written to other units.

**smtp port:**                              **<integer, 1 to 65535>**     V2.00

This property sets the SMTP server port. The value is an integer that ranges from 1 to 65535.

**smtp username:**                        **<string [0..32] ], no space>**   V2.00

This property sets the SMTP server username. The value is a string from 0 to 32 characters and may require encapsulated quotes.

**subject id:**                             **location**                 V2.00
                                           **system id**               V2.00

This property sets what unique system identification string is used in the email subject.

**trend file attachments:**                **disabled**               V2.11
                                           **enabled**               V2.11

This property enables or disables trend file attachments when email notifications are enabled.

**[fan sensor]**                                                   V2.13

This section defines specific fan sensor settings for the PDU. This section is readable only if fan sensors are present.

**id:**                                      **<fan sensor id string [2]>**     V2.13

    

This property sets the current fan sensor object to perform operations on and remains persistent within a section. The value is a valid 2 character fan sensor ID in the form of <unit id><sensor id>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**name:**                                    **<string, no space [0..32]>**         V2.13

This property sets the name of the currently selected fan sensor in the section. The value is a valid string with no spaces from 0 to 32 characters.  The value cannot be ALL, a duplicate fan sensor name or a reserved fan sensor ID.  The value may be blank.

**email notifications:**                **disabled**                    V2.13
                                             **enabled**                    V2.13

This property enables or disables email notifications for the currently selected fan sensor in the section.

**thresholds:**                            **<csv threshold list>**         V2.13

This property sets the threshold list for the currently selected fan sensor. The value is a comma separated fan threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>.  Each value is an integer level that ranges from 0 to 15300 (Rotations Per Minute).  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms.

**snmp trap notifications:**          **disabled**                    V2.13
                                             **enabled**                    V2.13

This property enables or disables SNMP trap notifications for the currently selected fan sensor in the section.

**[fan sensor global]**                                              V2.13

This section defines global fan sensor settings for the PDU.  This section is readable only if fan sensors are present.

**hysteresis:**                            **<integer, 0 to 1200>**         V2.13

This property sets the global fan sensor hysteresis. The value is an integer that ranges from 0 to 1200 (Rotations Per Minute).

**[ftp]**                                                          V2.00

This section defines FTP client and server settings for the PDU.

**client automatic updates:**          **disabled**        V2.00
                                                  **enabled**        V2.00

This property enables or disables FTP client updates.

**client update directory:**          **<string [0..64]>**        V2.00

This property sets the FTP client update directory. The value is a valid path name string from 0 to 64 characters.

**client update filename:**          **<string [0..32]>**        V2.00

This property sets the FTP client update directory. The value is a valid path name string from 0 to 32 characters.

**client update host:**          **<string [0..63], no space>**        V2.00

This property sets the FTP client update host name. The value is a valid host name from 0 to 63 characters.

**client update password:**          **<string [0..32]>**      **(WO)** V2.00
**client update password secure:**          **<hex [0 or 64]>**        V2.00

These properties set the FTP client update password. The plain text version is a **Write-Only** property whose value is a string from 0 to 32 characters that may require encapsulated quotes.  The "secure" version is either a blank (empty) or 64 character AES256 encrypted hex string that can be read and re-written to other units.

**client update scheduled day:**          **sunday**        V2.00
                                                  **monday**        V2.00
                                                  **tuesday**        V2.00
                                                  **wednesday**        V2.00
                                                  **thursday**        V2.00
                                                  **friday**        V2.00
                                                  **saturday**        V2.00
                                                  **everyday**        V2.00

This property sets the FTP client update scheduled day.

**client update scheduled hour:**          **12 am**        V2.00
                                                  **1 am**        V2.00
                                                  **2 am**        V2.00
                                                  **3 am**        V2.00

| | | |
|---|---|---|
| **4 am** | | V2.00 |
| **5 am** | | V2.00 |
| **6 am** | | V2.00 |
| **7 am** | | V2.00 |
| **8 am** | | V2.00 |
| **9 am** | | V2.00 |
| **10 am** | | V2.00 |
| **11 am** | | V2.00 |
| **12 pm** | | V2.00 |
| **1 pm** | | V2.00 |
| **2 pm** | | V2.00 |
| **3 pm** | | V2.00 |
| **4 pm** | | V2.00 |
| **5 pm** | | V2.00 |
| **6 pm** | | V2.00 |
| **7 pm** | | V2.00 |
| **8 pm** | | V2.00 |
| **9 pm** | | V2.00 |
| **10 pm** | | V2.00 |
| **11 pm** | | V2.00 |

This property sets the FTP client update scheduled hour.

| | | |
|---|---|---|
| **client update username:** | **<string [0..32]>** | V2.00 |

This property sets the FTP client update user name. The value is a string from 0 to 32 characters and may require encapsulated quotes.

| | | |
|---|---|---|
| **server:** | **disabled** | V2.00 |
| | **enabled** | V2.00 |

This property enables or disables the FTP server. A change to this property requires a restart.

## [group]                                                                 V2.10

This section manages group outlet access lists for the PDU.

| | | |
|---|---|---|
| **name:** | **<string [1..32]>** | V2.10 |

This property initializes the current valid group name.  The value is a string from 1 to 32 characters and may require encapsulated quotes. Creating a duplicate group is not permitted

| | | |
|---|---|---|
| **outlet access list:** | **<csv outlet id list>** | V2.10 |

This special repetitive property sets the outlet ID access list for the currently defined group. The value is a comma separated list of outlet ID's up to the maximum STIC line length. Preceding, trailing or duplicate commas are not permitted. If "ALL" is specified then all defined outlet ID's will be added to the currently defined user.  If this property is blank then no outlet access will be assigned. Multiple lines accumulate until the action command is encountered.

| action: | create | V2.10 |
|---|---|---|
| | delete | V2.10 |
| | modify | V2.10 |
| | update | V2.10 |

This property commits all currently-defined group settings in the section. The **name** property must be defined before specifying this property. After the action has occurred, all currently-defined group settings in the section will be reset.

- o **create –** create new group (group must not exist).
- o **delete** – delete group.
- o **modify** – make changes to an existing group (group must exist).
- o **update** – modify existing group or create if group does not exist.

## [humidity sensor]                                                V2.10

This section defines specific humidity sensor settings for the PDU. This section is readable only if humidity sensors are present.

| id: | <humidity sensor id string [2]> | V2.10 |
|---|---|---|

This property sets the current humidity sensor object to perform operations on and remains persistent within a section. The value is a valid 2 character humidity sensor ID in the form of <unit id><sensor id>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

| name: | <string, no space [0..32]> | V2.10 |
|---|---|---|

This property sets the name of the currently selected humidity sensor in the section. The value is a valid string with no spaces from 0 to 32 characters.  The value cannot be ALL, a duplicate humidity sensor name or a reserved humidity sensor ID.  The value may be blank.

| email notifications: | disabled | V2.11 |
|---|---|---|
| | enabled | V2.11 |

This property enables or disables email notifications for the currently selected humidity sensor in the section.

**thresholds:**                              **<csv threshold list>**          V2.11

      This property sets the threshold list for the currently selected humidity sensor. The value is a comma separated humidity threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>. Each value is an integer level that ranges from 0 to 100 (% Relative Humidity). Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms.

**snmp trap notifications:**               **disabled**                 V2.11
                                           **enabled**                  V2.11

      This property enables or disables SNMP trap notifications for the currently selected humidity sensor in the section.

## [humidity sensor global]               V2.11

This section defines global humidity sensor settings for the PDU. This section is readable only if humidity sensors are present.

**hysteresis:**                                 **<integer, 0 to 20>**         V2.11

      This property sets the global humidity sensor hysteresis. The value is an integer that ranges from 0 to 20 (% Relative Humidity).

## [ldap]                 V2.10

This section defines all LDAP network configuration settings for the PDU.

**bind type:**                                 **md5**                     V2.10
                                         **simple**                 V2.10
                                         **tls**                     V2.10

      This property sets the LDAP bind type.

**group membership attribute:**          **<string [0..30]>**        V2.10

      This property sets the LDAP group membership attribute. The value is a valid string from 0 to 30 characters.

**group search:**                              **disabled**                 V2.10
                                         **enabled**                  V2.10

      This property enables LDAP user group searches.

        

**group search base distinguished name:**      **<string [0..100]>**      V2.10

    This property sets the LDAP group search base distinguished name. The value is a valid string from 0 to 100 characters.

**port:**                                        **<integer, 1 to 65535>**      V2.10

    This property sets the LDAP port number. The value is an integer that ranges from 1 to 65535.

**primary host:**                                **<string [0..63], no space>**      V2.10

    This property sets the primary LDAP host name. The value is a valid host name from 0 to 63 characters.

**search bind distinguished name:**      **<string [0..124]>**      V2.10

    This property sets the LDAP search bind distinguished name. The value is a valid string from 0 to 124 characters.

**search bind password:**         **<string [0..32]>**         **(WO)** V2.10
**search bind password secure:**   **<hex [0 or 64]>**              V2.10

    These properties set the LDAP search bind password.  The plain text version is a **Write-Only** property whose value is a string from 0 to 32 characters that may require encapsulated quotes "secure" version is a 64 character AES256 encrypted hex string that can be read and re-written to other units.

    Note: The plain text **Write-Only** LDAP search bind password was formerly 0 to 20 characters prior to STIC V2.15.

**secondary host:**                              **<string [0..63], no space>**      V2.10

    This property sets the secondary LDAP host name. The value is a valid host name from 0 to 63 characters.

**user membership attribute:**         **<string [0..61]>**      V2.10

    This property sets the LDAP user membership attribute. The value is a valid string from 0 to 61 characters.

**user search base distinguished name:**      **<string [0..100]>**      V2.10

    This property sets the LDAP user search base distinguished name. The value is a valid string from 0 to 100 characters.

**user search filter:**                          **<string [0..100]>**      V2.10

This property sets the LDAP user search filter. The value is a valid string from 0 to 100 characters.

## [line]                                                                    V2.11

This section defines specific line settings for the PDU. This section is readable only if lines are present.

**id:**                            **<line id string [3]>**                    V2.11

This property sets the current line object to perform operations on and remains persistent within a section. The value is a valid 3 character line ID in the form of <unit id><cord id><line number>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**current thresholds:**                **<csv threshold list>**                V2.11

This property sets the current threshold list for the currently selected line. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>.  Each value is a floating point value that ranges from 0.0 to the maximum rated line current in tenth (Amp) increments. Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if line current sensing is present.

**email notifications:**                **disabled**                          V2.11
                                        **enabled**                           V2.11

This property enables or disables email notifications for the currently selected line in the section.

**snmp trap notifications:**            **disabled**                          V2.11
                                        **enabled**                           V2.11

This property enables or disables SNMP trap notifications for the currently selected line in the section.

## [line global]                                                             V2.11

This section defines global line settings for the PDU.  This section is readable only if lines are present.

**current hysteresis:**                **<float, 0.0 to 10.0>**                V2.11

This property sets the global line current hysteresis. The value is an integer that ranges from 0.0 to 10.0 in tenth (Amp) increments. This property is available only if line current sensing is present.

### [lldp]                                                                                   V2.17

This section defines Link Layer Discovery Protocol (LLDP) settings for the PDU.

**feature:**                                    **disabled**                              V2.17
                                                **enabled**                               V2.17

This property enables or disables LLDP advertising. A change to this property requires a restart.

**transmit interval:**                          **<integer, 5 to 32768>**                 V2.17

This property sets the LLDP advertising time in seconds. The value is an integer that ranges from 5 to 32768.

### [network]                                                                              V2.00

This section defines network settings for the PDU. Many of these settings are system specific.

**dhcp:**                                       **disabled**                              V2.00
                                                **enabled**                               V2.00

This property enables or disables DHCP. A change to this property requires a restart if the desired network mode is not disabled.

**dhcp boot delay:**                            **disabled**                              V2.00
                                                **enabled**                               V2.00

This property, when enabled, tells the PDU to wait approximately 90 seconds to establish a connection through a DHCP server on startup.  This allows various network interactions to succeed as the PDU powers up, such as generating SNMP startup traps or receiving SNTP time.  Disabling this forces a fast boot around 5 seconds before attempting to turn on outlets.  This is because the DHCP server itself may be connected to one of the PDU's outlets.  If the DHCP server boot time is excessive, this option should be disabled.

**dhcp fqdn:**                                  **disabled**                              V2.00
                                                **enabled**                               V2.00

This property enables or disables DHCP Fully Qualified Domain Name (FQDN) for the system. A change to this property requires a restart if DHCP is desired.

**dhcp fqdn name:**                               **<string [0..63], no space>**         V2.00

This property sets the DHCP Fully Qualified Domain Name for the system. The value is a valid FQDN host name string from 0 to 63 characters. A change to this property requires a restart if DHCP is desired and FQDN is enabled.

**dhcp static address fallback:**           **disabled**                          V2.00
                                                      **enabled**                            V2.00

This property, when enabled, tells the PDU to automatically fall back to a static address if a DHCP server does not respond within 90 seconds. Disabling this option will periodically make DHCP requests forever until the PDU obtains a dynamic address. A change to this property requires a restart if DHCP is desired.

**network mode:**                                     **disabled**            V2.00
                                                  **dual ipv6/ipv4**      V2.00
                                                  **ipv4 only**           V2.00

This property sets the preferred network configuration mode. A change to this property requires a restart

**static ipv4 address:**                          **< ipv4 string [7..15], no space>**   V2.00

This property sets the static IPv4 network address. The value is an IPv4 string from 7 to 15 characters.  A change to this property requires a restart if static addresses are desired (DHCP disabled) or DHCP static fallback is enabled.

**static ipv4 gateway:**                         **< ipv4 string [7..15], no space>**   V2.00

This property sets the static IPv4 gateway. The value is an IPv4 string up to 15 characters.  A change to this property requires a restart if static addresses are desired (DHCP disabled) or DHCP static fallback is enabled.

**static ipv4 subnet mask:**                    **<ipv4 string [7..15], no space>**   V2.00

This property sets the static IPv4 subnet mask. The value is an IPv4 string from 7 to 15 characters.  A change to this property requires a restart if static addresses are desired (DHCP disabled) or DHCP static fallback is enabled

**static ipv6 address:**                          **<ipv6 string [2..45], no space>**   V2.00

This property sets the static IPv6 network address. The value is a valid IPv4 or IPv6 (RFC4291) string from 2 to 45 characters.  A change to this property requires a restart if static addresses are desired (DHCP disabled) or DHCP static fallback is enabled.

        

**static ipv6 gateway:**         **< ipv6 string [2..45], no space>**     V2.00

This property sets the static IPv6 gateway. The value is a valid IPv4 or IPv6 (RFC4291) string from 2 to 45 characters.  A change to this property requires a restart if static addresses are desired (DHCP disabled) or DHCP static fallback is enabled.

**static ipv6 prefix:**         **<cidr string [1..4], no space>**     V2.00

This property sets the static IPv6 address prefix. The value can be an integer from 0 to 128 or as a standard CIDR string from /0 to /128.  A change to this property requires a restart if static addresses are desired (DHCP disabled) or DHCP static fallback is enabled

**static primary dns:**         **<ipv4/ipv6 string [2..45], no space>**     V2.00

This property sets the primary IPv4/IPv6 DNS address. The value is a valid IPv4 or IPv6 (RFC4291) string from 2 to 45 characters.

**static secondary dns:**         **<ipv4/ipv6 string [2..45], no space>**     V2.00

This property sets the secondary IPv4/IPv6 DNS address. The value is a valid IPv4 or IPv6 (RFC4291) string from 2 to 45 characters.

**zero touch provisioning:**         **disabled**         V2.12
                                      **enabled**         V2.12

This property enables or disables zero touch provisioning via DHCP option 43 requests. A change to this property requires a restart if DHCP is desired.

**[outlet]**         V2.10

This section defines specific outlet settings for the PDU. This section is readable only if outlets are present.

**id:**         **<outlet id string [3..5]>**     V2.10

This property sets the current outlet object to perform operations on and remains persistent within a section. The value is a valid 3 to 5 character outlet ID in the form of <unit id><cord id><outlet number>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**name:**         **<string, no space [0..32]>**     V2.10

This property sets the name of the currently selected outlet in the section. The value is a valid string with no spaces from 0 to 32 characters.  The value cannot be ALL, a duplicate outlet group name, a duplicate outlet name or a reserved outlet ID.  The value may be blank.

| | | |
|---|---|---|
| **control lock:** | **disabled** | V2.11 |
| | **enabled** | V2.11 |

This property enables or disables user outlet control for the currently selected outlet in the section.   Any attempt to change this setting for a non-switched outlet will be ignored.  This property is available only if the outlet can be switched.

| | | |
|---|---|---|
| **current thresholds:** | **<csv threshold list>** | V2.11 |

This property sets the current threshold list for the currently selected outlet. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>.  Each value is a floating point value that ranges from 0.0 to the maximum rated outlet current in tenth (Amp) increments. Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if per outlet current sensing is available.

| | | |
|---|---|---|
| **email notifications:** | **disabled** | V2.11 |
| | **enabled** | V2.11 |

This property enables or disables email notifications for the currently selected outlet in the section.

| | | |
|---|---|---|
| **extra on delay:** | **<integer, 0 to 900>** | V2.11 |

This property sets the extra on delay for the currently selected outlet in the section.   The value is an integer that ranges from 0 to 900 (seconds). Any attempt to change this setting for a non-switched outlet will be ignored. This property is available only if the outlet can be switched.

| | | |
|---|---|---|
| **host:** | **<string, no space [0..63]>** | V2.11 |

This property sets the shutdown host name of the currently selected outlet in the section. The value is a valid string with no spaces from 0 to 63 characters.  Any attempt to change this setting for a non-switched outlet will be ignored. This property is available only if the outlet can be switched.

| | | |
|---|---|---|
| **power factor thresholds:** | **<csv threshold list>** | V2.11 |

This property sets the power factor threshold list for the currently selected outlet. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,  Each value is a floating point value that ranges from 0.00 to 1.00 in hundredth increments.  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if AC per outlet power sensing is available.

**power thresholds:**                     **<csv threshold list>**                     V2.11

This property sets the power threshold list for the currently selected outlet. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>.  Each value is an integer that ranges from 0 to the maximum rated cord power (Watts).  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if per outlet power sensing is available.

**script delay:**                     **<integer, 1 to 15>**                     V2.11

This property sets the script delay for the currently selected outlet in the section. The value is an integer that ranges from 1 to 15 (minutes). Any attempt to change this setting for a non-switched outlet will be ignored. This property is available only if the outlet can be switched.

**script feature:**                     **disabled**                     V2.11
                                        **enabled**                      V2.11

This property enables or disables the outlet script feature for the currently selected outlet in the section.   Any attempt to change this setting for a non-switched outlet will be ignored. This property is available only if the outlet can be switched.

**shutdown delay:**                     **<integer, 30 to 900>**                     V2.11

This property sets the shutdown delay for the currently selected outlet in the section.   The value is an integer that ranges from 30 to 900 (seconds). Any attempt to change this setting for a non-switched outlet will be ignored. This property is available only if the outlet can be switched.

**shutdown feature:**                     **disabled**                     V2.11
                                          **enabled**                      V2.11

This property enables or disables the outlet shutdown feature for the currently selected outlet in the section.   Any attempt to change this setting for a non-switched outlet will be ignored. This property is available only if the outlet can be switched.

| | | |
|---|---|---|
| **snmp trap notifications:** | **disabled** | V2.11 |
| | **enabled** | V2.11 |

This property enables or disables SNMP trap notifications for the currently selected outlet in the section.

| | | |
|---|---|---|
| **socket adapter:** | **none** | V2.16 |
| | **C13** | V2.16 |
| | **C19** | V2.16 |

This property sets the outlet socket adapter type for manually configured universal PDU's for the currently selected outlet in the section. This property is available only if the outlet has user configurable outlet adapter types and will be ignored if the feature is unavailable.

| | | |
|---|---|---|
| **wakeup state:** | **last** | V2.11 |
| | **off** | V2.11 |
| | **on** | V2.11 |

This property sets the outlet wakeup state currently selected outlet in the section. Any attempt to change this setting for a non-switched outlet will be ignored. This property is available only if the outlet can be switched.

## [outlet global]      V2.11

This section defines global outlet settings for the PDU. This section is readable only if outlets are present.

| | | |
|---|---|---|
| **change logging:** | **disabled** | V2.11 |
| | **enabled** | V2.11 |

This property enables or disables outlet state change logging for all outlets. This property is available only if outlet switching is present.

| | | |
|---|---|---|
| **current hysteresis:** | **<float, 0.0 to 10.0>** | V2.11 |

This property sets the global current hysteresis for all outlets. The value is floating point and ranges from 0.0 to 10.0 in tenth (Amp) increments. This property is available only if per outlet current sensing is available.

| | | |
|---|---|---|
| **power factor hysteresis:** | **<float, 0.00 to 1.00>** | V2.11 |

This property sets the global power factor hysteresis for all outlets. The value is floating point and ranges from 0.00 to 1.00 in hundredth increments. This property is available only if AC per outlet power sensing is available.

**power hysteresis:**                 **<integer, 0 to 1000>**         V2.11

This property sets the global power hysteresis for all outlets. The value is an integer that ranges from 0 to 1000 (Watts). This property is available only if per outlet power sensing is available.

**reboot delay:**                 **<integer, 5 to 600>**         V2.11

This property sets the global reboot delay per outlet. The value is an integer that ranges from 5 to 600 (seconds). This property is available only if outlet switching is present.

**sequence interval:**                **<integer, 0 to 15>**         V2.11

This property sets the global sequence interval delay between outlets. The value is an integer that ranges from 0 to 15 (seconds). This property is available only if outlet switching is present.

**[over current protector]**                                    V2.11

This section defines specific over current protector settings for the PDU. This section is readable only if over current protectors are present.

**id:**                             **<ocp id string [3..4]>**         V2.11

This property sets the current "over current protector" object to perform operations on and remains persistent within a section. The value is a valid 3 to 4 character over current protector ID in the form of <unit id><cord id><ocp number>. The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**current capacity:**               **<integer, 1 to max OCP capacity>**    V2.11

This property sets the capacity for the currently selected over current protector in the section in order to compute threshold limits. The value is an integer that ranges from 1 to the maximum rated over current protector (Amp) capacity. The maximum capacity is unit specific and varies between models.

**email notifications:**               **disabled**                       V2.11
                                              **enabled**                       V2.11

This property enables or disables email notifications for the currently selected over current protector in the section.

**snmp trap notifications:**            **disabled**                       V2.11

**enabled**                                                      V2.11

This property enables or disables SNMP trap notifications for the currently selected over current protector in the section.

## [phase]                                                       V2.11

This section defines specific phase settings for the PDU. This section is readable only if phases are present.

**id:**                              **<phase id string [3]>**         V2.11

This property sets the current phase object to perform operations on and remains persistent within a section. The value is a valid 3 character phase ID in the form of <unit id><cord id><phase number>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**email notifications:**              **disabled**                     V2.11
                                      **enabled**                      V2.11

This property enables or disables email notifications for the currently selected phase in the section.

**power factor thresholds:**          **<csv threshold list>**         V2.11

This property sets the power factor threshold list for the currently selected phase. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,  Each value is a floating point value that ranges from 0.00 to 1.00 in hundredth increments.  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if AC phase power sensing is present.

**snmp trap notifications:**          **disabled**                     V2.11
                                      **enabled**                      V2.11

This property enables or disables SNMP trap notifications for the currently selected phase in the section.

**voltage thresholds:**               **<csv threshold list>**         V2.11

This property sets the voltage threshold list for the currently selected outlet. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>.  Each value is a floating point value that ranges from the minimum rated phase voltage to the maximum rated phase voltage in tenth (Volt) increments.  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms. This property is available only if phase voltage sensing is available.

## [phase global]                                                              V2.11

This section defines global phase settings for the PDU.  This section is readable only if phases are present.

**power factor hysteresis:**              **<float, 0.00 to 1.00>**           V2.11

This property sets the global phase power factor hysteresis. The value is floating point and ranges from 0.00 to 1.00 in hundredth increments. This property is available only if AC phase power sensing is present.

**voltage hysteresis:**                   **<float, 0.0 to 20.0>**            V2.11

This property sets the global phase voltage hysteresis. The value is floating point and ranges from 0.0 to 20.0 in tenth (Volt) increments. This property is available only if phase voltage sensing is present.

## [port]                                                                      V2.11

This section defines specific port settings for the PDU. This section is readable only if ports are present.

**id:**                                   **<port id string [4]>**           V2.11

This property sets the current port object to perform operations on and remains persistent within a section. The value is a valid 4 character port ID in the form of **COM**<port number>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

| **baud:** | **1200** | V2.11 |
|---|---|---|
| | **2400** | V2.11 |
| | **4800** | V2.11 |
| | **9600** | V2.11 |
| | **19200** | V2.11 |
| | **38400** | V2.11 |
| | **57600** | V2.11 |
| | **115200** | V2.11 |

This property sets the baud rate for the currently selected port in the section if the port is unlocked. Any attempts to change this setting on a locked port will be ignored.

**dsr check:**                                    **disabled**                              V2.11
                                                 **enabled**                               V2.11

This property enables or disables DSR monitoring for the currently selected port in the section if the port is unlocked.  Any attempts to change this setting on a locked port will be ignored.

**remote connection timeout:**          **<integer, 0 to 60>**                    V2.11

This property sets the remote connection timeout for the currently selected port in the section if the port is unlocked.  The value is an integer that ranges from 0 to 60 (minutes).  Any attempts to change this setting on a locked port will be ignored.

**rftag support:**                               **disabled**                              V2.13
                                                 **enabled**                               V2.13

This property enables or disables RFTAG support for the currently selected port in the section if the port is unlocked.  Any attempts to change this setting on a locked port will be ignored.

**[radius]**                                                                               V2.10

This section defines all Radius network configuration settings for the PDU.

**primary server:**                              **<string [0..63], no space>**            V2.10

This property sets the primary Radius server name. The value is a valid host name from 0 to 63 characters.

**primary server port:**                         **<integer, 1 to 65535>**                 V2.10

This property sets the primary Radius server port. The value is an integer that ranges from 1 to 65535.

**primary server retries:**                      **<integer, 0 to 10>**                    V2.10

This property sets the primary Radius server retries. The value is an integer that ranges from 0 to 10.

**primary server shared secret:**        **<string [0..48]>**                      **(WO)** V2.10
**primary server shared secret secure:** **<hex [0 or 96]>**                              V2.10

These properties set the primary Radius server shared secret.  The plain text version is a **Write-Only** property whose value is a string from 0 to 48 characters that may require encapsulated quotes.  The "secure" version is a 96 character AES256 encrypted hex string that can be read and re-written to other units.

**primary server timeout:**          **\<integer, 1 to 30\>**          V2.10

This property sets the primary Radius server retries. The value is an integer that ranges from 1 to 30 (seconds).

**secondary server:**          **\<string [0..63], no space\>**          V2.10

This property sets the secondary Radius server name. The value is a valid host name from 0 to 63 characters.

**secondary server port:**          **\<integer, 1 to 65535\>**          V2.10

This property sets the secondary Radius server port. The value is an integer that ranges from 1 to 65535.

**secondary server retries:**          **\<integer, 0 to 10\>**          V2.10

This property sets the secondary Radius server retries. The value is an integer that ranges from 0 to 10.

**secondary server shared secret:**    **\<string [0..48]\>**          **(WO)** V2.10
**secondary server shared secret secure:\<hex [0 or 96]\>**          V2.10

These properties set the secondary Radius server shared secret.  The plain text version is a **Write-Only** property whose value is a string from 0 to 48 characters that may require encapsulated quotes.  The "secure" version is a 96 character AES256 encrypted hex string that can be read and re-written to other units.

**secondary server timeout:**          **\<integer, 1 to 30\>**          V2.10

This property sets the secondary Radius server retries. The value is an integer that ranges from 1 to 30 (seconds).

**[snmp]**          V2.00

This section defines Simple Network Management Protocol (SNMP) settings for the PDU.

**get community:**          **\<string [0..32]\>**          V2.00

This property sets the SNMP GET community string. The value is a string from 0 to 32 characters.

| ip restrictions: | none | V2.00 |
| | trap destinations only | V2.00 |

This property sets the SNMP IP address restrictions.

| set community: | <string [0..32]> | V2.00 |

This property sets the SNMP SET community string. The value is a string from 0 to 32 characters.

| system contact: | <string [0..63]> | V2.00 |

This property sets the SNMP system contact string. The value is a string from 0 to 63 characters.

| system name: | <string [0..63]> | V2.00 |

This property sets the SNMP system name string. The value is a string from 0 to 63 characters.

| trap community: | <string [0..32]> | V2.00 |

This property sets the SNMP TRAP community string. The value is a string from 0 to 32 characters.

| trap destination primary host: | <string [0..63], no space> | V2.00 |

This property sets the SNMP primary trap destination host name. The value is a valid host name from 0 to 63 characters.

| trap destination secondary host: | <string [0..63], no space> | V2.00 |

This property sets the SNMP secondary trap destination host name. The value is a valid host name from 0 to 63 characters.

| trap error repeat time: | <integer, 1 to 65535> | V2.00 |

This property sets the SMTP trap error repeat time in seconds. The value is an integer that ranges from 1 to 65535.

| trap format: | v1 | V2.00 |
| | v2c | V2.00 |
| | v3 | V2.00 |

This property sets the SNMP trap format to send.

| **v2:** | **disabled** | V2.00 |
|---|---|---|
| | **enabled** | V2.00 |

This property enabled or disables SNMPv2 agent.  A change to this property requires a restart.

| **v3:** | **disabled** | V2.00 |
|---|---|---|
| | **enabled** | V2.00 |

This property enabled or disables SNMPv3 agent.  A change to this property requires a restart.

**v3 trap username:**  **<string [0..31]>**  V2.00

This property sets the SNMPv3 trap user name. The value is a string from 0 to 31 characters and should be encapsulated.

## [snmp] DEPRECATED

The following properties were deprecated in V2.14 and changed to **Write-Only** in order to maintain legacy script support.  It is highly recommended to use the [snmpv3 user] commands for future scripting.  Mixing these commands with newer [snmpv3 user] commands will cause undesirable results so only use one of the two methods.

| **v3 read-only user auth method:** | **md5** | V2.00-2.13 |
|---|---|---|
| | **md5 with des** | V2.00-2.13 |
| | **none** | V2.00-2.13 |

This property sets the SNMPv3 read-only user authentication method. Any option with MD5 requires an associated user authentication password.  Any option with DES requires an associated user privacy password.

| **v3 read-only user auth password:** | **<string [0..39]>** | **(WO)** V2.00-2.13 |
|---|---|---|
| **v3 read-only user auth password secure:** | **<hex [0 or 96]>** | V2.00-2.13 |

These properties set the SNMPv3 read-only user authentication password if the MD5 method is selected.  The plain text version is a **Write-Only** property whose value is a string from 0 to 39 characters that may require encapsulated quotes.  The "secure" version is either a blank (empty) or 96 character AES256 encrypted hex string that can be read and re-written to other units.

| **v3 read-only user privacy password:** | **<string [0..31]>** | **(WO)** V2.00-2.13 |
|---|---|---|
| **v3 read-only user privacy password secure:** | **<hex [0 or 64]>** | V2.00-2.13 |

These properties set the SNMPv3 read-only privacy password if the DES method is selected. The plain text version is a **Write-Only** property whose value is a string from 0 to 31 characters that may require encapsulated quotes.  The "secure" version is either a blank (empty) or 64 character AES256 encrypted hex string that can be read and re-written to other units.

**v3 read-only username:**                     **&lt;string [0..31]&gt;**              **(DEP)** V2.00-2.13

This property sets the SNMPv3 read-only user name. The value is a string from 0 to 31 characters and should be encapsulated.  This property sets the SNMPv3 read-write user name. This property was

**v3 read-write user auth method:**         **md5**                                        V2.00-2.13
                                                            **md5 with des**                        V2.00-2.13
                                                            **none**                                       V2.00-2.13

This property sets the SNMPv3 read-write user authentication method. Any option with MD5 requires an associated user authentication password.  Any option with DES requires an associated user privacy password.

**v3 read-write user auth password:**             **&lt;string [0..39]&gt;**       **(WO)** V2.00-2.13
**v3 read-write user auth password secure:**   **&lt;hex [0 or 96]&gt;**                V2.00-2.13


These properties set the SNMPv3 read-write user authentication password if the MD5 method is selected.  The plain text version is a **Write-Only** property whose value is a string from 0 to 39 characters that may require encapsulated quotes.  The "secure" version is either a blank (empty) or 96 character AES256 encrypted hex string that can be read and re-written to other units.

**v3 read-write user privacy password:**           **&lt;string [0..31]&gt;**       **(WO)** V2.00-2.13
**v3 read-write user privacy password secure:** **&lt;hex [0 or 64]&gt;**                V2.00-2.13

These properties set the SNMPv3 read-write user privacy password if the DES method is selected. The plain text version is a **Write-Only** property whose value is a string from 0 to 31 characters that may require encapsulated quotes.  The "secure" version is either a blank (empty) or 64 character AES256 encrypted hex string that can be read and re-written to other units.

**v3 read-write username:**                     **&lt;string [0..31]&gt;**                       V2.00-2.13

This property sets the SNMPv3 read-write user name.

**[snmpv3 user]**                                                                                       V2.14

This section manages Simple Network Management Protocol(SNMPv3) user configuration for the PDU.

**name:**                                    **<string [0..31]>**                        V2.14

     This property initializes the current SNMPv3 user name. The value is a string from 0 to 31 characters and may require encapsulated quotes.  Creating a duplicate SNMPv3 user is not permitted.

**access:**                                   **disabled**                                V2.14
                                         **read-only**                               V2.14
                                         **read-write**                              V2.14
                                       **write-only**                              V2.14

     This property sets access method for the currently defined SNMPv3 user. A change to this property requires a restart.

**auth method:**                              **none**                                   V2.14
                                         **md5**                                     V2.14
                                         **md5 with des**                            V2.14
                                         **md5 with aes**                            V2.19
                                         **sha**                                     V2.19
                                         **sha with des**                            V2.19
                                         **sha with aes**                            V2.19

     This property sets the authentication method for the currently defined SNMPv3 user. Any option with MD5 or SHA requires an associated user authentication password.  Any option with DES or AES requires an associated user privacy password. A change to this property requires a restart.

**auth password:**                            **<string [0..39]>**                **(WO)** V2.14
**auth password secure:**                     **<hex [0 or 96]>**                         V2.14

     These properties set the authentication password method for the currently defined SNMPv3 user if the MD5 method is selected.  The plain text version is a **Write-Only** property whose value is a string from 0 to 39 characters that may require encapsulated quotes.  The "secure" version is either a blank (empty) or 96 character AES256 encrypted hex string that can be read and re-written to other units.

**privacy password:**                         **<string [0..31]>**                **(WO)** V2.14
**privacy password secure:**                  **<hex [0 or 64]>**                         V2.14

These properties set the privacy password for the currently defined SNMPv3 user if the DES method is selected. The plain text version is a **Write-Only** property whose value is a string from 0 to 31 characters that may require encapsulated quotes.  The "secure" version is either a blank (empty) or 64 character AES256 encrypted hex string that can be read and re-written to other units.

| | | |
|---|---|---|
| **action:** | **create** | V2.14 |
| | **delete** | V2.14 |
| | **modify** | V2.14 |
| | **update** | V2.14 |

This property commits all currently defined user settings in the section. An SNMPv3 user **name** property must be defined before specifying this property. After the action has occurred, all currently defined SNMPv3 user settings in the section will be reset.

- o **create –** create new SNMPv3 user (user must not exist).
- o **delete** – delete SNMPv3 user.
- o **modify** – make changes to an existing SNMPv3 user (user must exist).
- o **update** – modify existing SNMPv3 user or create if user does not exist.

## [sntp]                                                                                    V2.00

This section defines Simple Network Time Protocol (SNTP) settings for the PDU including Daylight Saving Time (DST) and Time Zone (TZ) strings.

| | | |
|---|---|---|
| **dst:** | **disabled** | V2.00 |
| | **enabled** | V2.00 |

This property enables or disables Daylight Saving Time.

| | | |
|---|---|---|
| **dst end time zone string:** | **<time zone string [11..15]>** | V2.00 |

This property sets DST end TZ string. The value is a string from 11 to 15 characters in the format: "**m.w.d/h:m:s**" where the first m is the end month (1-12), **w** is the end week (1-4) or last week (5), **d** is the end weekday from Sunday to Saturday (0-6), h is the end hour (0-23), the last **m** is the end minute (0-59) and **s** is the end second (**0-59**).

| | | |
|---|---|---|
| **dst start time zone string:** | **<time zone string [11..15]>** | V2.00 |

This property sets DST start TZ string. The value is a string from 11 to 15 characters in the format: "**m.w.d/h:m:s**" where the first m is the end month (1-12), **w** is the end week (1-4) or last week (5), **d** is the end weekday from Sunday to Saturday (0-6), h is the end hour (0-23), the last **m** is the end minute (0-59) and **s** is the end second (**0-59**).

**local gmt offset:**                                  **<gmt offset string, [1..6]>**          V2.00

This property sets the local GMT offset. The value is a gmt offset string that ranges from -12:59 to +14:59. The '+' sign is optional. If the exact hour is being specified then ':MM' minutes are also optional.

**primary host:**                                      **<string [0..63], no space>**          V2.00

This property sets the SNTP primary host name. The value is a valid host name from 0 to 63 characters.

**secondary host:**                                    **<string [0..63], no space>**          V2.00

This property sets the SNTP secondary host name. The value is a valid host name from 0 to 63 characters.

## [syslog]                                                                                V2.00

This section defines syslog protocol settings for the PDU.

**debug messaging:**                                   **disabled**                            V2.11
                                                       **enabled**                             V2.11

This property enables or disables sending debug messages to the syslog server.

**hostname source:**                                   **fqdn**                                V2.18
                                                       **system name**                         V2.18

This property sets the syslog hostname source string to either the default system name or network fqdn string. If rfc3164 protocol is specified with FQDN as the source, the hostname will be clipped to the first "." separator if one is present.

**port:**                                              **<integer, 1 to 65535>**               V2.00

This property sets the syslog host port. The value is an integer that ranges from 1 to 65535.

**primary host:**                                      **<string [0..63], no space>**          V2.00

This property sets the syslog primary host name. The value is a valid host name from 0 to 63 characters.

**protocol:**                                                     **rfc3164**                                          V2.10
                                                      **rfc5424**                                          V2.10

This property sets the syslog protocol format as either RFC3164 or RFC5424.

**secondary host:**                               **<string [0..63], no space>**           V2.00

This property sets the syslog secondary host name. The value is a valid host name from 0 to 63 characters.

## [system]                            V2.00

This section defines system settings for the PDU.

**location:**                                    **<string [0..63]>**                V2.00

This property sets the system location string (including SNMP). The value is a string from 0 to 63 characters.

## [tacacs]                          V2.10

This section defines all TACACS+ network configuration settings for the PDU.

**key:**                                         **<string [0..60]>**          **(WO)** V2.10
**key secure:**                               **<hex [0 or 128]>**            V2.10

These properties set the TACACS+ key. The plain text version is a **Write-Only** property whose value is a string from 0 to 60 characters that may require encapsulated quotes. The "secure" version is a 128 character AES256 encrypted hex string that can be read and re-written to other units.

**port:**                                      **<integer, 1 to 65535>**       V2.10

This property sets the TACACS+ host port. The value is an integer that ranges from 1 to 65535.

**primary host:**                               **<string [0..63], no space>**           V2.10

This property sets the TACACS+ primary host name. The value is a valid host name from 0 to 63 characters.

**secondary host:**                               **<string [0..63], no space>**           V2.10

                    

This property sets the TACACS+ secondary host name. The value is a valid host name from 0 to 63 characters.

## [temperature sensor]                                                    V2.10

This section defines specific temperature sensor settings for the PDU. This section is readable only if temperature sensors are present.

**id:**                                  **<temperature sensor id string [2]>**     V2.10

This property sets the current temperature sensor object to perform operations on and remains persistent within a section. The value is a valid 2 character temperature sensor ID in the form of <unit id><sensor number>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**name:**                                **<string, no space [0..32]>**             V2.10

This property sets the name of the currently selected temperature sensor in the section. The value is a valid string with no spaces from 0 to 32 characters.  The value cannot be ALL, a duplicate temperature sensor name or a reserved temperature sensor ID.  The value may be blank.

**email notifications:**                 **disabled**                              V2.11
                                         **enabled**                               V2.11

This property enables or disables email notifications for the currently selected temperature sensor in the section.

**snmp trap notifications:**             **disabled**                              V2.11
                                         **enabled**                               V2.11

This property enables or disables SNMP trap notifications for the currently selected temperature sensor in the section.

**thresholds celsius:**                  **<csv threshold list, Celsius>**         V2.11
**thresholds fahrenheit:**               **<csv threshold list, Fahrenheit>**      V2.11

These properties set the threshold list for the currently selected temperature sensor in Fahrenheit or Celsius. The value is a comma separated current threshold list in the format <low alarm>,<low warning>,<high warning>,<high alarm>.  Each value is an integer that ranges from the minimum rated temperature to the maximum rated temperature (degrees F or C) depending on the temperature scale that was specified.  Values must be specified in increasing order and may repeat or be pegged to limits in order to disable specific warnings and alarms.

## [temperature sensor global]                                    V2.11

This section defines global temperature sensor settings for the PDU.  This section is readable only if temperature sensors are present.

**hysteresis celsius:**               **<integer, 0 to 30>**               V2.11
**hysteresis fahrenheit:**            **<integer, 0 to 54>**               V2.11

These properties set the global temperature sensor hysteresis in Fahrenheit or Celsius. The value is an integer that ranges from 0 to 20 (degrees F) if "fahrenheit" is specified and 0 to 30 (degrees C) if "celsius" is specified.

**scale:**                            **celsius**                          V2.11
                                      **fahrenheit**                       V2.11

This property sets the displayed temperature scale in Fahrenheit or Celsius.

## [unit]                                                          V2.10

This section defines specific unit settings for the PDU.

**id:**                               **<unit id string [1]>**             V2.10

This property sets the current unit object to perform operations on and remains persistent within a section. The value is a valid 1 character unit ID in the form of <unit id>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

**name:**                             **<string, no space [0..32]>**       V2.10

This property sets the name of the currently selected unit in the section. The value is a valid string with no spaces from 0 to 32 characters.  The value cannot be ALL, a duplicate unit name or a reserved unit ID. The value may be blank.

**asset tag:**                        **<string, [0..32]>**                V2.11

This property sets the asset tag of the currently selected unit in the section. The value is a valid string from 0 to 32 characters. Any attempt to change this setting on a legacy unit that does not support asset tags will be ignored.

**display orientation:**              **auto**                             V2.11
                                      **inverted**                         V2.11
                                      **normal**                           V2.11

This property sets the display orientation for the currently selected unit in the section.   Any attempt to change this setting on device that does not have display support or does not support a particular display option will be ignored.

**email notifications:**                      **disabled**                      V2.11
                      **enabled**             V2.11

This property enables or disables email notifications for the currently selected unit in the section.

**outlet display order:**                **normal**                     V2.13
                      **reversed**           V2.13

This property sets the outlet display order in the WEB and CLI for the currently selected unit in the section.   Any attempt to change this setting on device that does not have sequential switched outlets will be ignored.

**outlet sequence:**                      **normal**                     V2.11
                      **reversed**           V2.11

This property sets the outlet sequence order for the currently selected unit in the section.   Any attempt to change this setting on device that does not have switched outlets will be ignored.

**snmp trap notifications:**           **disabled**                     V2.11
                      **enabled**           V2.11

This property enables or disables SNMP trap notifications for the currently selected unit in the section.

## [user]                V2.00

This section manages user configuration for the PDU.

**ldap group name:**                    **<string [1..32]>**          V2.10

This property initializes the current valid LDAP group name to perform operations on. The value is a string from 1 to 32 characters and may require encapsulated quotes. Creating a duplicate LDAP group is not permitted

**tacacs privilege level:**              **<integer, 0..15>**          V2.10

This property initializes the current valid TACACS+ privilege level to perform operations on. The value is an integer that ranges from 0 to 15. Creating or deleting TACACS+ privilege levels is not permitted.

| username: | <string [1..32]> | V2.00 |
|---|---|---|

This property initializes the current valid local username to perform operations on. The value is a string from 1 to 32 characters and may require encapsulated quotes. Creating a duplicate local user is not permitted

| access level: | admin | V2.10 |
|---|---|---|
| | on only | V2.10 |
| | power user | V2.10 |
| | reboot only | V2.10 |
| | user | V2.10 |
| | view only | V2.10 |

This property sets the access level for the currently defined user. The default access level is "user" if not specified.

| group access list: | <csv list, no space> | V2.10 |
|---|---|---|

This special repetitive property sets the outlet group access list for the currently defined user. The value is a comma separated list of existing outlet group names up to the maximum STIC line length. Preceding, trailing or duplicate commas are not permitted. If "ALL" is specified then all defined outlet groups will be added to the currently defined user. If this property is blank then no outlet group access will be assigned. Multiple lines accumulate until the action command is encountered.

| outlet access list: | <csv outlet id list> | V2.10 |
|---|---|---|

This special repetitive property sets the outlet ID access list for the currently defined user. The value is a comma separated list of outlet ID's up to the maximum STIC line length. Preceding, trailing or duplicate commas are not permitted. If "ALL" is specified then all defined outlet ID's will be added to the currently defined user. If this property is blank then no outlet access will be assigned. Multiple lines accumulate until the action command is encountered.

| password: | <string [1..32]> | (WO) | V2.00 |
|---|---|---|---|
| password secure: | <hex [64]> | | V2.00 |

These properties set the local user password for the currently defined user. The plain text version is a **Write-Only** property whose value is a string from 1 to 32 characters that may require encapsulated quotes. The "secure" version is a 64 character SHA256 hashed hex string that can be read and re-written to other units. This only applies to local users as specified by the **username** property

| remote port access list: | <csv port id list> | V2.10 |
|---|---|---|

This property sets the remote port access list for the currently defined user. The value is a comma separated list of existing port ID's up to the maximum STIC line length. Preceding, trailing or duplicate commas are not permitted. If "ALL" is specified then all defined remote ports will be added to the currently defined user. If this property is blank then no remote port access will be assigned.

| | | |
|---|---|---|
| **system monitor access:** | **disabled** | V2.10 |
| | **enabled** | V2.10 |

This property enables or disables system monitor access for the currently defined user.

| | | |
|---|---|---|
| **action:** | **create** | V2.10 |
| | **delete** | V2.10 |
| | **modify** | V2.00 |
| | **update** | V2.10 |

This property commits all currently defined user settings in the section. A **username**, **ldap group name** or **tacacs privilege level** property must be defined before specifying this property.  After the action has occurred, all currently defined user settings in the section will be reset.

- o **create –** create new user (user must not exist).
- o **delete** – delete user.
- o **modify** – make changes to an existing user (user must exist).
- o **update** – modify existing user or create if user does not exist.

## [water sensor]                                                                V2.10

This section defines specific water sensor settings for the PDU. This section is readable only if water sensors are present.

| | | |
|---|---|---|
| **id:** | **<water sensor id string [2]>** | V2.10 |

This property sets the current water sensor object to perform operations on and remains persistent within a section. The value is a valid 2 character water sensor ID in the form of <unit id><sensor number>.  The ID property must be defined before setting any other object dependent property and may be redefined as needed.

| | | |
|---|---|---|
| **name:** | **<string, no space [0..32]>** | V2.10 |

This property sets the name of the currently selected water sensor in the section. The value is a valid string with no spaces from 0 to 32 characters.  The value cannot be ALL, a duplicate water sensor name or a reserved water sensor ID. The value may be blank.

| **email notifications:** | **disabled** | V2.11 |
|---|---|---|
| | **enabled** | V2.11 |

This property enables or disables email notifications for the currently selected water sensor in the section.

| **snmp trap notifications:** | **disabled** | V2.11 |
|---|---|---|
| | **enabled** | V2.11 |

This property enables or disables SNMP trap notifications for the currently selected water sensor in the section.

**[web]**  V2.00

This section defines web settings for the PDU, including HTTP and Secure Socket Layer (SSL) web servers.

| **http:** | **disabled** | V2.00 |
|---|---|---|
| | **enabled** | V2.00 |

This property enables or disables the web server. A change to this property requires a restart.

| **http port:** | **<integer, 1 to 65535>** | V2.00 |
|---|---|---|

This property sets the HTTP server port. The value is an integer that ranges from 1 to 65535.  A change to this property requires a restart if HTTP is enabled.

| **https:** | **disabled** | V2.00 |
|---|---|---|
| | **enabled** | V2.00 |

This property enables or disables the SSL web server. A change to this property requires a restart.

| **https port:** | **<integer, 1 to 65535>** | V2.00 |
|---|---|---|

This property sets the SSL web server port. The value is an integer that ranges from 1 to 65535.  A change to this property requires a restart if HTTPS is enabled.

| **log entries per page:** | **<integer, 10 to 250>** | V2.11 |
|---|---|---|

This property sets the number of log messages displayed in a web page. The value is an integer that ranges from 10 to 250 (entries).

| | | |
|---|---|---|
| **session timeout:** | **<integer, 1 to 1440>** | V2.10 |

This property sets the idle WEB session time out. The value is an integer that ranges from 1 to 1440 (minutes).

| | | |
|---|---|---|
| **spm password reset:** | **no** | V2.10 |
| | **yes** | V2.10 |

This **Write-Only** property resets the SPM secure access password.

| | | |
|---|---|---|
| **spm secure access:** | **disabled** | V2.10 |
| | **enabled** | V2.10 |

This property enables or disables SPM secure access.

| | | |
|---|---|---|
| **json api web service:** | **disabled** | V2.16 |
| | **enabled** | V2.16 |

This property enables or disables the JSON API Web Service (JAWS).

| | | |
|---|---|---|
| **[wlan]** | | V2.10 |

This section defines the Wireless Local Area Network settings for the PDU. This section is readable only if the PDU has a WLAN capable NIC card.

| | | |
|---|---|---|
| **bssid:** | **<MAC string [17] or blank>** | V2.10 |

This property locks a wireless access point to a specific BSSID. The value is a 17 character MAC string in the format <XX:XX:XX:XX:XX:XX:XX> or blank if no BSSID locking is desired.

| | | |
|---|---|---|
| **feature:** | **disabled** | V2.10 |
| | **enabled** | V2.10 |

This property enables or disables the Wireless Local Area Network hardware for WLAN capable NIC cards. Only the WLAN port is available when this property is enabled. Only the Ethernet port is available when this property is disabled. A change to this property requires a restart.

| | | |
|---|---|---|
| **key:** | **<string [0..63]>** | **(WO)** V2.10 |
| **key secure:** | **<hex [0 or 128]>** | V2.10 |

These properties set the SSID for a wireless access point. The plain text version is a **Write-Only** property whose value is a string from 0 to 63 characters that may require encapsulated quotes. The "secure" version is a 128 character AES256 encrypted hex string that can be read and re-written to other units.

| **security:** | open | V2.10 |
|---|---|---|
| | **wep open key** | V2.10 |
| | **wep shared key** | V2.10 |
| | **wpa-psk aes** | V2.10 |
| | **wpa-psk tkip** | V2.10 |
| | **wpa-psk tkip+aes** | V2.10 |
| | **wpa2-psk aes** | V2.10 |
| | **wpa2-psk tkip** | V2.10 |
| | **wpa2-psk tkip+aes** | V2.10 |

This property sets the security for a wireless access point.

| **ssid:** | **<string [0..31]>** | V2.10 |
|---|---|---|

This property sets the SSID for a wireless access point. The value is a string from 0 to 32 characters and may require encapsulated quotes.

- o [humidity sensor] thresholds
- o [temperature sensor global] hysteresis celsius
- o [temperature sensor global] hysteresis fahrenheit

## [ztp]                                                                      V2.12

This section defines the Zero Touch Provisioning (ZTP) options for the PDU.

| **automatic updates:** | disabled | V2.13 |
|---|---|---|
| | **enabled** | V2.13 |

This property enables or disables ZTP automatic updates.

| **state reset:** | no | V2.12 |
|---|---|---|
| | **yes** | V2.12 |

This **Write-Only** property resets the Zero Touch Provisioning state so that a new DHCP option 43 request can be reissued on the next DHCP lease. This property is ignored when used in a ZTP request.

| **update scheduled day:** | sunday | V2.13 |
|---|---|---|
| | **monday** | V2.13 |
| | **tuesday** | V2.13 |
| | **wednesday** | V2.13 |
| | **thursday** | V2.13 |
| | **friday** | V2.13 |
| | **saturday** | V2.13 |
| | **everyday** | V2.13 |

This property sets the ZTP update scheduled day.

| update scheduled hour: | | |
|---|---|---|
| | **12 am** | V2.13 |
| | **1 am** | V2.13 |
| | **2 am** | V2.13 |
| | **3 am** | V2.13 |
| | **4 am** | V2.13 |
| | **5 am** | V2.13 |
| | **6 am** | V2.13 |
| | **7 am** | V2.13 |
| | **8 am** | V2.13 |
| | **9 am** | V2.13 |
| | **10 am** | V2.13 |
| | **11 am** | V2.13 |
| | **12 pm** | V2.13 |
| | **1 pm** | V2.13 |
| | **2 pm** | V2.13 |
| | **3 pm** | V2.13 |
| | **4 pm** | V2.13 |
| | **5 pm** | V2.13 |
| | **6 pm** | V2.13 |
| | **7 pm** | V2.13 |
| | **8 pm** | V2.13 |
| | **9 pm** | V2.13 |
| | **10 pm** | V2.13 |
| | **11 pm** | V2.13 |

This property sets the ZTP update scheduled hour.

## Revision History:

2020-Jun-01                STIC Protocol Release                          V2.19

- Expanded "[snmpv3 user] auth method" options to include**:**

    o  md5 with aes                                           (2020-May-06)
    o  sha
    o  sha with des
    o  sha with aes

2019-Dec-10                STIC Protocol Release                          V2.18


- Added password restricted security note.
- Moved "Section Property/Value Summary" near the top of this document.
- Moved "Revision History" to the end of this document.
- Added the following read & write properties:

    o  [syslog] hostname source:                           (2019-Dec-06)

2019-Jul-02                STIC Protocol Release                          V2.17

- Added the following new section:                         (2019-Jan-22)

    o  [lldp]

- Added the following read & write properties:

    o  [lldp] feature                                      (2019-Jan-22)
    o  [lldp] transmit interval                            (2019-Jan-22)

2018-Jun-20                STIC Protocol Release                          V2.16

- Added the following read & write properties:

    o  [outlet] socket_adapter                             (2018-Jun-20)
    o  [web] json api web service                          (2017-Oct-04)

2018-Jan-03                STIC Protocol Release                          V2.15

- Changed the following write only property string length from 20 to 32 characters:

    o  [ldap] search bind password                         (2017-Nov-13)

2017-Aug-25                    STIC Protocol Release                    V2.14

- Added the following new section:                    (2017-May-11)

    o  [snmpv3 user]

- Added the following read & write properties:        (2017-Aug-25)

    o  [snmpv3 user] name
    o  [snmpv3 user] access
    o  [snmpv3 user] auth method
    o  [snmpv3 user] auth password secure
    o  [snmpv3 user] privacy password secure
    o  [snmpv3 user] action
    o  [outlet] socket adapter

- Added the following write only properties:          (2017-Aug-25)

    o  [snmpv3 user] auth password
    o  [snmpv3 user] privacy password

- The following [snmp] fields are now deprecated in V2.14:    (2017-Aug-25)

    o  v3 read-only user auth method
    o  v3 read-only user auth password
    o  v3 read-only user auth password secure
    o  v3 read-only user privacy password
    o  v3 read-only user privacy password secure
    o  v3 read-only username
    o  v3 read-write user auth method
    o  v3 read-write user auth password
    o  v3 read-write user auth password secure
    o  v3 read-write user privacy password
    o  v3 read-write user privacy password secure
    o  v3 read-write username

These commands still exist as **Write-Only** to maintain legacy script support.
However, to utilize the new expanded SNMPv3 user additions, user management
should be handled through the new [snmp3 user] section.

Mixing legacy commands with newer command can cause undesirable results so
only use one of the two methods. It is recommended to adjust older scripts to
utilize the new section rather than the previous legacy commands.

- Fixed AES decryption alignment.  Though working legacy encrypted STIC data should still work, it is highly recommended to rebuild templates from a newer STIC V2.14 config.ini file or higher version.

2017-Jun-14                    STIC Protocol Release                    V2.13

- Added the following read & write properties:

    - [unit] outlet display order                    (2017-Mar-27)
    - [port] rftag support                           (2017-Jan-26)
    - [fan sensor] id                                (2017-May-11)
    - [fan sensor] name                              (2017-May-11)
    - [fan sensor] email notifications               (2017-May-11)
    - [fan sensor] snmp trap notifications           (2017-May-11)
    - [fan sensor] thresholds                        (2017-May-11)
    - [fan sensor global] hysteresis                 (2017-May-11)
    - [ztp] automatic updates                        (2017-May-26)
    - [ztp] update scheduled day                     (2017-May-26)
    - [ztp] update scheduled hour                    (2017-May-26)

- Added the following new sections:                  (2017-May-11)
    - [fan sensor]
    - [fan sensor global]

2017-Mar-08                    STIC Protocol Release                    V2.12

- Added the following new section:

  [ztp]                                              (2017-Jan-26)

- Added the following write only property:

    - [ztp] state reset                              (2017-Jan-26)

- Added the following read & write property:

    - [net] zero touch provisioning                  (2017-Jan-26)

- Added the following read & write STI header control property:

    - [Server Technology INI Configuration] restart  (2017-Jan-18)

2016-May-16                    STIC Protocol Release                    V2.11

2016-Apr-05

- Setting "[access] local administrator account" to optional removes the restriction to delete the last local admin and forces "[access] configuration reset button" to be enabled to allow system recovery.

- Setting "[access] configuration reset button" to disabled forces "[access] local administrator account" to be required.  If there are no local administrators accounts present then this is forced to enabled to allow system recovery.

2015-Aug-07

- Added indexed group, user and device information to config.ini

- Added PDU system log entry and line number for each successfully ignored property

- Added the following new sections:

  [adc sensor global], [branch], [branch global], [cord global], [data trending], [humidity sensor global], [line], [line global], [outlet global], [over current protector], [phase], [phase global], [port], [temperature sensor global], [water sensor global]

- Added the following read & write properties:

  - [access] default log order
  - [adc sensor] email notifications
  - [adc sensor] snmp trap notifications
  - [adc sensor] thresholds
  - [adc sensor global] hysteresis
  - [branch] id
  - [branch] current thresholds
  - [branch] email notifications
  - [branch] snmp trap notifications
  - [branch global] current hysteresis
  - [contact sensor] email notifications
  - [contact sensor] snmp trap notifications
  - [cord] 3-phase out-of-balance thresholds
  - [cord] apparent power thresholds
  - [cord] email notifications
  - [cord] nominal power factor                              (2015-Oct-07)
  - [cord] power thresholds
  - [cord] power factor thresholds
  - [cord] snmp trap notifications
  - [cord global] 3-phase out-of-balance hysteresis

- o [cord global] apparent power hysteresis
- o [cord global] power factor hysteresis
- o [cord global] power hysteresis
- o [data trending] feature
- o [email] trend file attachments
- o [humidity sensor] email notifications
- o [humidity sensor] snmp trap notifications
- o [humidity sensor] thresholds
- o [humidity sensor global] hysteresis
- o [line] id
- o [line] current thresholds
- o [line] email notifications
- o [line] snmp trap notifications
- o [line global] current hysteresis
- o [outlet] control lock
- o [outlet] current thresholds
- o [outlet] email notifications
- o [outlet] extra on delay
- o [outlet] host
- o [outlet] power thresholds
- o [outlet] power factor thresholds
- o [outlet] script delay
- o [outlet] script feature
- o [outlet] shutdown delay
- o [outlet] shutdown feature
- o [outlet] snmp trap notifications
- o [outlet] wakeup state
- o [outlet global] change logging
- o [outlet global] current hysteresis
- o [outlet global] power factor hysteresis
- o [outlet global] power hysteresis
- o [outlet global] reboot delay
- o [outlet global] sequence interval
- o [over current protector] id
- o [over current protector] email notifications
- o [over current protector] snmp trap notifications
- o [phase] id
- o [phase] email notifications
- o [phase] power factor thresholds
- o [phase] snmp trap notifications
- o [phase] voltage thresholds
- o [phase global] power factor hysteresis
- o [phase global] voltage hysteresis
- o [port] id
- o [port] baud
- o [port] dsr check

- o [port] remote connection timeout
- o [syslog] debug messaging
- o [temperature sensor] email notifications
- o [temperature sensor] snmp trap notifications
- o [temperature sensor] thresholds celsius
- o [temperature sensor] thresholds fahrenheit
- o [temperature sensor global] hysteresis celsius
- o [temperature sensor global] hysteresis fahrenheit
- o [temperature sensor global] scale
- o [unit] asset tag
- o [unit] display orientation
- o [unit] email notifications
- o [unit] outlet sequence
- o [unit] snmp trap notifications
- o [water sensor] email notifications
- o [water sensor] snmp trap notifications
- o [web] log entries per page

- Changed the following write only properties to read & write properties:

  - o [adc sensor] id
  - o [adc sensor] name
  - o [contact sensor] id
  - o [contact sensor] name
  - o [cord] id
  - o [cord] name
  - o [group] name
  - o [group] action
  - o [humidity sensor] id
  - o [humidity sensor] name
  - o [outlet] id
  - o [outlet] name
  - o [temperature sensor] id
  - o [temperature sensor] name
  - o [unit] id
  - o [unit] name
  - o [user] ldap group name
  - o [user] tacacs privilege level
  - o [user] username
  - o [user] access level
  - o [user] password secure
  - o [user] remote port access list
  - o [user] system monitor access
  - o [user] action
  - o [water sensor] id
  - o [water sensor] name

- Changed the following special repetitive write only properties to read & write properties:

  - [group] outlet access list
  - [user] group access list
  - [user] outlet access list

- Fixed [web] spm password reset to NOT reset when "no" specified

- Fixed minimum length of [bluetooth] name from 0 to 1

- Improved validation checks & logging granularity

2015-Aug-06                    STIC Protocol Release                    V2.10

2015-Jul-01

- Added the following new sections:

  [access], [adc sensor], [banner], [bluetooth], [contact sensor], [cord], [group], [humidity sensor], [ldap], [outlet], [radius], [tacacs], [temperature sensor], [unit], [water sensor] & [wlan]

- Added the following read & write properties:

  - [access] access method
  - [access] configuration reset button
  - [access] startup stick
  - [access] strong passwords
  - [banner] action
  - [bluetooth] discoverability
  - [bluetooth] feature
  - [bluetooth] name
  - [bluetooth] pin
  - [bluetooth] transmission power
  - [cli] custom prompt
  - [cli] session timeout
  - [ldap] bind type
  - [ldap] group membership attribute
  - [ldap] group search
  - [ldap] group search base distinguished name
  - [ldap] port
  - [ldap] primary host
  - [ldap] secondary host

- o [ldap] search bind distinguished name
- o [ldap] search bind password secure
- o [ldap] user membership attribute
- o [ldap] user search base distinguished name
- o [ldap] user search filter
- o [radius] primary server
- o [radius] primary server port
- o [radius] primary server retries
- o [radius] primary server shared secret secure
- o [radius] primary server timeout
- o [radius] secondary server
- o [radius] secondary server port
- o [radius] secondary server retries
- o [radius] secondary server shared secret secure
- o [radius] secondary server timeout
- o [syslog] protocol
- o [tacacs] key secure
- o [tacacs] port
- o [tacacs] primary host
- o [tacacs] secondary host
- o [web] session timeout
- o [web] spm secure access
- o [wlan] bssid
- o [wlan] feature
- o [wlan] key secure
- o [wlan] security
- o [wlan] ssid

- Added the following special repetitive read & write property:

  - o [banner] line

- Added the following write only properties:

  - o [adc sensor] id
  - o [adc sensor] name
  - o [contact sensor] id
  - o [contact sensor] name
  - o [cord] id
  - o [cord] name
  - o [group] action
  - o [group] outlet access list
  - o [group] name
  - o [humidity sensor] id
  - o [humidity sensor] name
  - o [ldap] search bind password

- o [outlet] id
- o [outlet] name
- o [radius] primary server shared secret
- o [radius] secondary server shared secret
- o [tacacs] key
- o [temperature sensor] id
- o [temperature sensor] name
- o [unit] id
- o [unit] name
- o [user] access level
- o [user] group access list
- o [user] ldap group name
- o [user] outlet access list
- o [user] remote port access list
- o [user] system monitor access
- o [user] tacacs privilege level
- o [water sensor] id
- o [water sensor] name
- o [web] spm password reset
- o [wlan] key

- Added the following special repetitive write only properties:

  - o [group] outlet access list
  - o [user] group access list
  - o [user] outlet access list

- Expanded "[user] action" commands to include **create**, **delete** & **update**

- Changed [wlan] section to be hidden when WLAN hardware is not supported

2015-May-21             STIC Protocol V2.00 release             V2.00

2015-Mar-13

- Added **config.ini** read for all STIC entries except the [user] section

- Added the following read & write properties:

  - o [email] smtp password secure
  - o [ftp] client update password secure
  - o [snmp] v3 read-only user auth password secure
  - o [snmp] v3 read-only user privacy password secure
  - o [snmp] v3 read-write user auth password secure
  - o [snmp] v3 read-write user privacy password secure
  - o [user] password secure

- **Derived STIC V2.00 for PROx products from STIC V1.00 Protocol**