

# Automatic Onboarding

## Overview

Many agent-based standard protocols used to manage networking devices recommend using unique credentials (username/password, keys, etc.) for each managed device. This recommendation enhances security and enables individual device identification during message exchanges. However, it introduces additional complexity, as each managed device must be pre-provisioned with unique credentials before deployment.

The **Automatic Onboarding** feature in CONTROL simplifies this pre-configuration process. It allows devices to initially connect using a common set of credentials, which are then automatically replaced with individual credentials after the first successful connection.

## Accessing Automatic Onboarding Settings

**Automatic Onboarding** options are configured per **Device Profile / Type** and can be accessed through:

**Inventory > Profile / type**

Automatic onboarding ▲

Automatic device onboarding  
Activate the automatic device onboarding using the username and password defined below.

Username:   
Automatic device onboarding username.

Password:   
Automatic device onboarding password.

Manufacturer:   
When is set the 'manufacturer' information received from the device must match this setting. Please be aware that the matching process is case sensitive.

Unique ID:   
When is set the 'Unique ID / OUI' information received from the device must match this setting. Please be aware that the matching process is case sensitive.

Product class:   
When set the 'product class' information received from the device must match this setting. Please be aware that the matching process is case sensitive.

Serial number prefix:   
When set the serial number received from the device must have this prefix. Please be aware that the matching process is case sensitive.

Overwrite existing devices  
Overwrite existing devices which configured name matches the defined automatic onboarding profile settings.

Debug on auto-onboarding  
Activate debug logs on the first connection of devices configured through the auto-onboarding process.

For detailed information about accessing **Device Profile / Type** configuration screens, refer to the [Device Profile / Type configuration](#) section.

# Configuration

## Enabling Automatic Onboarding

To configure and activate **Automatic Onboarding** for a specific **Device Profile / Type**:

1. Navigate to the **Device Profile / Type** configuration screen
2. Locate the **Automatic onboarding section**
3. Enable the *Automatic device onboarding* checkbox
4. Populate the following required fields:
  - **Username**: The pre-defined username that devices will use during initial authentication
  - **Password**: The pre-defined password that devices will use during initial authentication

Once configured, any device connecting to the platform with these credentials will be automatically onboarded and assigned to the corresponding **Device Profile / Type**.

## Device Identification Fields

The following optional fields provide additional validation and identification criteria for connecting devices:

- **Manufacturer**: Filters devices by manufacturer name
- **Unique ID**: Specifies a unique identifier for device matching
- **Product class**: Filters devices by product class designation
- **Serial number prefix**: Matches against the beginning characters of the device serial number

## Identification Rules

- **Case sensitivity**: All identification field matching is case-sensitive
- **Prefix matching**: For *Serial number prefix*, the system matches the specified text against the left-most characters of the received serial number
- **Protocol dependency**: Identification fields are management protocol-dependent and must be provided in the first message from the managed device (e.g., the *Inform* message for devices managed through *TR-069*)

## Example

If the *Manufacturer* field is set to `Zequence`, the **Automatic Onboarding** process for this **Device Profile / Type** will only apply to devices that identify themselves with `Zequence` in their manufacturer field.

# Advanced Configuration

Additional **Automatic Onboarding** configurations can be customized through:

- **Connection Profile** objects for each **Device Profile / Type**
- **Connection service** objects for each **Device Profile / Type**

TBC

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