This Technical Advisory describes an issue which may or may not affect the customer's product

Intel Technical Advisory

TA-1161

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BMC version 2.48.ce3e3bd2 implements new password complexity rules

Products Affected

Product Name	Product Code
Intel® Server Systems	Intel® Server Systems R1000WF Family Intel® Server Systems R2000WF Family Intel® Server System S9200WK Family Intel® Server System M20MYP Family
Intel® Server Compute Modules	Intel® Compute Module HNS2600BP Family
Intel® Server Mother Boards	Intel® Server Board S2600BP Family Intel® Server Board S2600WF Family Intel® Server Board S2600ST Family

Description

The Baseboard Management Controller (BMC) firmware version 2.48.ce3e3bd2 implements new BMC Password complexity rules as described in detail in this document. The BMC firmware version 2.48.ce3e3bd2 default setting for password complexity value is set to Medium. In previous BMC firmware version 2.48.89b32e0d (and earlier) no option for complexity rules were available. The equivalent version of enabling password complexity rules on version 2.48.89b32e0d (and earlier) is to Disable password complexity rules on version 2.48.ce3e3bd2.

The main purpose of the added feature of Password complexity rules, is to prevent setting weak passwords due to security considerations.

Customer Impact

There is a potential scenario where the user may upgrade to BMC firmware version **2.48.ce3e3bd2** or newer and perform a "**BMC Factory default**" restoration. This action will enforce the new password rules, setting the complexity to Medium, and forcing the user to follow the new password complexity rules. User must set a password compliant with the selected complexity policy when setting a new password after BMC Factory default.
If a BMC Factory default is not performed, the system will keep accepting the old password even if it does not comply with the new complexity rules.

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Password Complexity Rules

Low

- Must contain printable characters only
- Length must not be shorter than 6 characters

Password must comply with a minimum of 3 of the following criteria:

1. Contain upper case letters (e.g. A, G)
2. Contain lower case letters (e.g. a, g)
3. Contain numbers (e.g. 1, 6)
4. Contain symbols (e.g. $, &)
5. Could not contain the username (case insensitive) (e.g. username=Hello, Password=th12(heLLo)_78)

Medium (default)

- Must contain printable characters only
- Length must not be shorter than 8 characters
- Cannot be the same as the username or the username in reverse order.
- Have at least two new characters when compared with the previous password.
- Must contain at least one upper case letter
- Must contain at least one lower case letter
- Must contain at least one number
- Must contain at least one space or symbol

High

- Must contain printable characters only
- Length must not be shorter than 8 characters
- Must contain at least one upper case letter
- Must contain at least one lower case letter
- Must contain at least one number
- Must contain at least one symbol
- Must not contain the username (case insensitive) (e.g. username=Hello, Password=th12(heLLo)_78)
- Must not contain 3 or more sequential digits (e.g. 123, 654)
- Must not contain 3 or more sequential letters of the alphabet (e.g. AbC, DeF)
- Must not contain 4 or more letters together (e.g. Fher, PaSs)
- Must not contain 4 or more digits together (e.g. 4390, 5849)
- Must not repeat the same character 4 or more times

Recommended Customer Action

We recommend users that upgrade their Intel® Server System BMC firmware to version 2.48.ce3e3bd2 evaluate whether the existing password is compliant with the new BMC password complexity rules and then decide whether to change the password or complexity settings. This can be done by changing the settings on BMC Embedded Web Server (EWS) on Security Settings option that is under the Configuration tab, or by IPMI using the following raw commands:

To read if the configuration is enabled or disabled:

```
# ipmitool raw 0x3e 0x76 0x00
```

To disable the complex password rules:

```
# ipmitool raw 0x3e 0x76 0x01 0x00
```

To enable the complex password rules

```
# ipmitool raw 0x3e 0x76 0x01 0x01
```

To set the complexity (must be enabled first)

```
# ipmitool raw 0x3e 0x77 0x01 0x01  //For low
# ipmitool raw 0x3e 0x77 0x01 0x02  //For medium
# ipmitool raw 0x3e 0x77 0x01 0x03  //For high
```

For further assistance contact your Intel support representative.

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