xFusion Zabbix Template 2.8

User Guide

Issue 01

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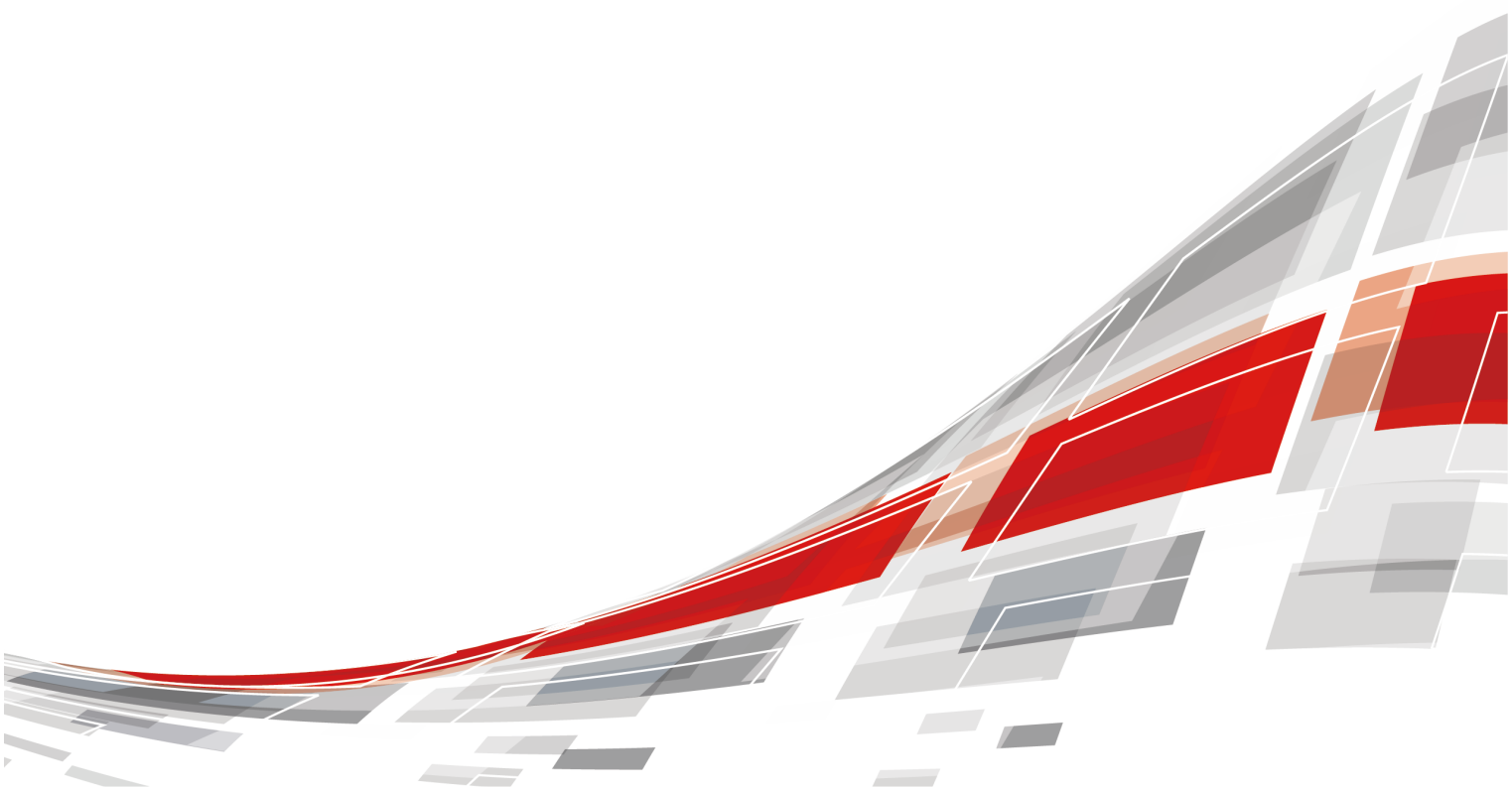

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About This Document

Purpose

This document describes the functions and usage of the Zabbix plug-in. The Zabbix plug-in is provided as a Zabbix template. Users can directly use it or use it for secondary development. The Zabbix plug-in can be used to monitor the intelligent Baseboard Management Controller (iBMC), or Hyper Management Module (HMM).

Intended Audience

This document is intended for:

- Technical support engineers
- System maintenance engineers

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
DANGER	Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.
WARNING	Indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
CAUTION	Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. NOTICE is used to address practices not related to personal injury.

Symbol	Description
NOTE	Supplements the important information in the main text. NOTE is used to address information not related to personal injury, equipment damage, and environment deterioration.

Change History

Issue	Date	Description
01	2025-06-30	This issue is the first official release.

Contents

About This Document ii

1 Zabbix Template Introduction 1

1.1 Zabbix Compatibility Information 1

1.2 Zabbix Template Names 3

1.2.1 Template Names (for Zabbix 5.0 only) 3

1.2.2 Template Names (for Zabbix 5.4 or later) 3

2 Template Functions 4

3 Verify the software package 5

4 Template Configuration 6

4.1 Configuring the iBMC or HMM 6

4.2 Importing an iBMC or HMM Template 6

4.3 Configuring an HMM or iBMC Template 7

4.4 Adding a Host 7

A Obtaining Technical Support 9

B Communication Matrix 10

1 Zabbix Template Introduction

The Zabbix plug-in is provided as a Zabbix template. Users can directly use it or use it for secondary development. The Zabbix plug-in can be used to monitor the iBMC or HMM.

1.1 Zabbix Compatibility Information

1.2 Zabbix Template Names

1.1 Zabbix Compatibility Information

For details about the Zabbix compatibility, see **Table 1-1**.

Table 1-1 Compatibility information

Managed Object	Compatible Zabbix Version	Version Dependency	Hardware Compatibility	Interface Protocol
HMM	• Zabbix 5.0 • Zabbix 5.4 • Zabbix 6.0	HMM V686D or later	**Blade server**: • E9000 (MM910)	• SNMPv2

Managed Object	Compatible Zabbix Version	Version Dependency	Hardware Compatibility	Interface Protocol
iBMC	• Zabbix 5.0 • Zabbix 5.4 • Zabbix 6.0 • Zabbix 6.4 • Zabbix 7.0 • Zabbix 7.2	V3/V5 server:iBMC V294 or later V6 server and later versions: iBMC V3.03.07.09 or later	**Rack server**: • RH1288 V3 • RH2288 V3 • RH2288H V3 • RH5885 V3 • RH8100 V3 • 1288H V5 • 2288H V5 • 2488 V5 • 2288 V5 • 1288H V6 • 2288H V6 • 5885H V6 • 1288H V7 • 2288H V7 • 5288 V7 • 5885H V7 • 2488H V7 • 1258H V7 • 2258 V7 • 5298 V7 • 1158H V7 • 2258H V7 **High-density server**: • XH321 V3 • XH620 V3 • XH622 V3 • XH628 V3 **Heterogeneous server**: • G560 V5 • G5500 V6 • G5500 V7 • G8600 V7 **Blade server**: • CH121L V5	• SNMPv2 • SNMPv3

1.2 Zabbix Template Names

1.2.1 Template Names (for Zabbix 5.0 only)

- template_xfusion_iBMC_v3v5.xml
- template_xfusion_iBMC.xml
- template_xfusion_E9000_HMM.xml

1.2.2 Template Names (for Zabbix 5.4 or later)

- template_xfusion_iBMC_v3v5.yaml
- template_xfusion_iBMC.yaml
- template_xfusion_E9000_HMM.yaml

2 Template Functions

iBMC Template

Monitoring page:

- **Latest data** tab page: CPU, fan, hard disk, iBMC system information, memory, power supply, RAID controller card, firmware Info, network card, OCP card, PCIe card, BusinessPort, LogicalDrive, and temperature
- **Problems and triggers** tab page: system health status, CPU status, fan status, power supply status, hard disk status, memory status, OCP card status, PCIe card status, network card status, management network port status, and business port link status
- **Graphs** tab page: inlet temperature, power consumption, system CPU usage, averagePower, peakPower, presentSystemPower and system memory usage

Inventory page: type, name, OS, serial number, tag, and MAC address

HMM Template

Monitoring page:

- **Latest data** tab page: CPU, fan, power supply, switch, system information, and temperature
- **Problems and triggers** tab page: system health, chassis health, SMM health, blade status, fan status, power supply status, and switch status
- **Graphs** tab page: ambient temperature, inlet temperature, LSW temperature, outlet temperature, real-time chassis power, blade CPU power, blade inlet temperature, real-time blade power, and blade system CPU usage

Inventory page: type, name, OS, serial number, tag, and MAC address

3 Verify the software package

You need obtained software package for the Zabbix plug-in Templates and verified its integrity.

Step 1 Obtain software package for the Zabbix plug-in Templates (for example, **xFusion_Zabbix_Template_V2.1.tar.gz**) and its SHA256 verification file (for example, **xFusion_Zabbix_Template_V2.1.sha256.summ**) from **GitHub**.

Step 2 Verify the integrity of the Zabbix plug-in Templates software package(on Linux).

1. Go to the directory where the Templates installation package and SHA256 verification file are stored.
2. Run the **sha256sum -c < (grep** *software package name sha256 verification file name***)** command to verify the software package.

   Example: **sha256sum -c <(grep xFusion_Zabbix_Template_V2.1.tar.gz xFusion_Zabbix_Template_V2.1.sha256.sum)**
3. Check whether the verification result is **OK**.
   - If yes, the software package has not been tampered with and can be used.
   - If no, the software package has been tampered with. Obtain a new software package.

----End

4 Template Configuration

4.1 Configuring the iBMC or HMM
4.2 Importing an iBMC or HMM Template
4.3 Configuring an HMM or iBMC Template
4.4 Adding a Host

4.1 Configuring the iBMC or HMM

NOTE

HMMs support only the SNMPv2 protocol.

Step 1 Enable SNMPv2/SNMPv3 protocol.

Step 2 Configure a community name.

NOTE

This parameter is required if the SNMP version is set to SNMPv2.

----End

4.2 Importing an iBMC or HMM Template

NOTE

- The imported template is for reference only. You can modify it as required.
- For Zabbix 5.0, use the XML template.

Step 1 Log in to **GitHub** and obtain the **template_xfusion_iBMC_v3v5.yaml**, **template_xfusion_iBMC.yaml**, or **template_xfusion_E9000_HMM.yaml** template.

Step 2 Log in to the Zabbix WebUI.

Step 3 Choose **Configuration > Templates**. The **Templates** page is displayed.

Step 4 Click **Import**. The **Import** page is displayed.

Step 5 Click **Import file** and select the template obtained in **Step 1**.

Step 6 Click **Import**.

----End

4.3 Configuring an HMM or iBMC Template

NOTE

- The **template_xfusion_iBMC_v3v5** corresponds to the server of V5 or previous versions, and the **template_xfusion_iBMC** corresponds to the server of V6 version, please select as required.
- The community name needs to be configured in the template if the SNMP version is set to **SNMPv2**.
- The community name does not need to be configured if the SNMP version is set to **SNMPv3**.

Step 1 Log in to the Zabbix WebUI.

Step 2 Choose **Configuration > Templates**. The **Templates** page is displayed.

Step 3 Click the name of the iBMC or HMM template that has been imported. The template configuration page is displayed.

Step 4 Click **Macros** and set **{$SNMP_COMMUNITY}** and **{$SNMP_PORT}**.

- The value of **{$SNMP_COMMUNITY}** is the community name configured in **4.1 Configuring the iBMC or HMM**.
- Retain the default value 161 for **{$SNMP_PORT}**.

Step 5 Click **Update**.

----End

4.4 Adding a Host

NOTE

HMMs support only the SNMPv2 protocol.

Step 1 Log in to the Zabbix WebUI.

Step 2 Choose **Configuration > Hosts**. The **Hosts** page is displayed.

Step 3 Click **Create host**. The page for creating a host is displayed.

Parameters:

- **Host name**: Enter the host name.
- **Groups**: Select **xFusion Server**.
- **interfaces**:
  - **Agent interfaces**: Click **Remove** to remove the existing IP address information.(This is only required for Zabbix 5.0.)
  - **SNMP interfaces**: Click **Add**, set the IP address of the iBMC or HMM and retain the default port number **161**.

- **SNMP version**: Select **SNMPv2** or **SNMPv3** based on the SNMP version enabled on the server.

  NOTE

  If the SNMP version is set to **SNMPv3**, the value of the sub-parameter must be the same as that on the iBMC WebUI of the server. The iBMC supports only the authPriv security level. SHA1, SHA, and SHA128 are of the same encryption algorithm. AES and ASE128 are of the same algorithm.

- The value of **SNMP community** is the community name configured in **4.1 Configuring the iBMC or HMM**.

  NOTE

  This parameter is mandatory when the SNMP version is set to **SNMPv2**.

- **Enabled**: Retain the default value.

Templates: Click **Select**. In the upper right corner of the displayed page, select the corresponding group (**xFusion Server**) and select the required template. After the selection is complete, click **Add**.

Inventory: Select **Automatic**.

Step 4 Click **Add**.

----End

A Obtaining Technical Support

To obtain assistance, contact technical support as follows:

- Contact customer service center at **support@xfusion.com**.
- Contact technical support personnel.

B Communication Matrix

Source Device	Source IP Address	Source Port Number	Destination Device	Destination IP Address	Destination Port Number	Protocol	Port Description	Destination Port Configurable (Yes/No)	Authentication Mode	Encryption Mode
Device to which zabbix belongs	IP address of the device to which zabbix belongs	Random	iBMC	IP address of the device to which iBMC belongs	161	UDP	iBMC SNMP server port is used to obtain SNMP information.	Yes	v1 v2c: Team name v3: Username/ Password Note: using v1 and v2c will reduce security of the system. Exercise caution when performing this operation.	SNMPV3 is subject to iBMC user settings.

Source Device	Source IP Address	Source Port Number	Destination Device	Destination IP Address	Destination Port Number	Protocol	Port Description	Destination Port Configurable (Yes/No)	Authentication Mode	Encryption Mode
iBMC	IP address of the device to which iBMC belongs	Random	Device to which zabbix belongs	IP address of the device to which zabbix belongs	162	UDP	iBMC SNMP Trap receiving port is used to obtain SNMP Trap information.	Yes	v1 v2c: Team name v3: Username/ Password Note: using v1 and v2c will reduce security of the system. Exercise caution when performing this operation.	None

