

Configuração do Nagios para  
monitoramento do FiberMesh

# FiberMesh OMH100S



Para Boas Práticas de Instalação Metálica e Óptica, outras Notas Técnicas, Firmwares desse e de outros equipamentos consultar a área de Suporte Técnico no Portal Furukawa, clicando [aqui](#).

**Compatível com:**

Produto	Versão
Nagios core	4.4.1
FiberMesh (MIB)	OMH100v2

**Importante:**

**A Furukawa recomenda manter o firmware atualizado sempre na última versão disponível.**

Antes de iniciar as configurações é importante ter o projeto lógico em mãos. Ele deve ser o guia para que as configurações sejam executadas de maneira planejada, rápida e eficiente. O projeto lógico bem executado garante uma administração da rede tranquila e sem conflitos futuros, maior disponibilidade e confiabilidade além de permitir ampliações e alterações sem imprevistos. O projeto lógico ainda servirá de referência futura e será um auxílio poderoso na busca e solução de problemas de performance, instabilidade ou indisponibilidade de rede.

## 1 OBJETIVO

Auxiliar na configuração do Nagios® Core™ versão 4.4.1 para monitoramento do FiberMesh® MIB versão Omh100V2.

## 2 PRÉ-REQUISITOS

Para prosseguir é necessário ter instalado o Nagios em um computador/servidor que consiga se comunicar com os FiberMesh's.

Caso ainda não tenha o Nagios instalado, siga as instruções disponibilizadas no site oficial, clicando [aqui](#).

## 3 CONFIGURAÇÃO NAGIOS

Execute as seguintes etapas para configurar o Nagios.

### 3.1 Script

O arquivo *check\_fibermesh* deve ser inserido na pasta **libexec** “/usr/local/nagios/libexec”. Esse arquivo é o script onde estão os comandos para comunicação com o FiberMesh via SNMP.

### 3.2 Arquivos de configuração

Para melhor organização crie uma pasta chamada **fibermesh** em “/usr/local/nagios” e insira os seguintes arquivos:

- **commands\_define.cfg**: Este arquivo contém a definição dos comandos dos scripts que serão utilizados, junto com seus parâmetros.
- **templates.cfg**: Definição dos modelos de configuração que serão utilizados pelos hosts e serviços.
- **groups.cfg**: Configuração dos grupos de hosts e serviços que serão utilizados para melhor organização.
- **fibermesh.cfg**: Contém a configuração dos hosts e serviços.

Depois de inseridos os arquivos de configuração, é necessário configurar a pasta para que os arquivos sejam executados. No arquivo **nagios.cfg** (/usr/local/nagios/etc/nagios.cfg) adicione o seguinte comando **cfg\_dir=/usr/local/nagios/etc/fibermesh**.

### 3.3 Verificação de erros e reinício da aplicação

Antes de aplicar as modificações, é recomendado verificar se possui erros e somente depois reiniciar o Nagios. Para isso execute o comando **/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg**. Caso não apresente nenhum erro, o Nagios pode ser reiniciado, para aplicar as modificações utilize **/etc/init.d/nagios restart**.

## 4 PERSONALIZAÇÃO DOS ARQUIVOS DE CONFIGURAÇÃO

Os arquivos de configuração podem ser modificados de acordo com as necessidades e dispositivos.

Materiais de apoio:

- Table of Contents ([aqui](#)).
- Object Configuration Overview ([aqui](#)).
- Object Definitions ([aqui](#)).

### 4.1 Define host

Novos FiberMesh's (host) devem ser adicionados no arquivo **fibermesh.cfg**, conforme o exemplo abaixo.

```
define host{
    host_name      FiberMesh11
    use            TemplateHostRede
    alias          FiberMesh 11
    address        10.80.41.11
    contact_groups admins
    hostgroups     fiber-mesh
}
```

- **host\_name:** identificação do host (único para cada dispositivo).
- **use:** indica de qual Template o host irá herdar as configurações.
- **alias:** nome do host.
- **address:** endereço IP do host.
- **contact\_groups:** grupo de contatos à qual pertence.
- **hostgroups:** grupos de hosts à qual pertence.

### 4.2 Define service

Os novos serviços devem ser inseridos no arquivo **fibermesh.cfg** também, conforme o exemplo abaixo.

```
define service{
    use            TemplateService
    host_name      FiberMesh11
    service_description ICMP
    check_command  check_fibermesh_alive
    contact_groups admins
    servicegroups  fibermesh-icmp
}
```

- **use:** indica de qual Template o serviço irá herdar as configurações.
- **host\_name:** deve ser inserido a identificação do host que utilizará este serviço

- **service\_description:** identificação do serviço
- **check\_command:** nome do comando, já definido em “commands\_define.cfg”, que será utilizado.
- **contact\_groups:** grupo de contatos à qual pertence.
- **servicegroups:** grupo de serviços à qual pertence.

### 4.3 Grupo

Os grupos servem para organizar os elementos que possuem características em comum. O gerenciamento facilita quando visualizados em grupos. As configurações devem ser adicionadas no arquivo **groups.cfg**.

Por exemplo: Grupo de hosts “FiberMesh” (agrupa todos os FiberMesh’s), Grupo de serviços “ICMP” (agrupa todos os serviços ICMP).

```
define hostgroup {
    hostgroup_name    fiber-mesh
    alias             FiberMesh
}

define servicegroup{
    servicegroup_name    fibermesh-icmp
    alias                 Fibermesh ICMP
}

define servicegroup{
    servicegroup_name    fibermesh-status
    alias                 Fibermesh Status
}
```

- **hostgroup\_name / servicegroup\_name:** identificação do grupo.
- **alias:** nome do grupo.

### 4.4 Comandos

Os comandos devem ser definidos no arquivo **commands\_define.cfg**, de acordo com o exemplo abaixo.

```
# 'check_fibermesh' command definition
# Check the status link up of optical port
# ARG1 = Community
# ARG2 = Optical port
# Example: FX1
define command{
    command_name    check_fibermesh
    command_line    $USER1$/check_fibermesh -H $HOSTADDRESS$ -C $ARG1$ -x $ARG2$
}

# 'check_fibermesh_alive' command definition
# Check status of ICMP service
define command {
    command_name    check_fibermesh_alive
    command_line    $USER1$/check_icmp -H $HOSTADDRESS$ -w -1,30% -c -1,100% -p 3
}
```

- **command\_name**: identificação do comando.
- **command\_line**: linha de comando onde deve conter o local do arquivo e seus parâmetros.
- **\$USER1\$** -> Já definido em **resource.cfg**, faz o apontamento para a pasta **libexec**.

Logo após vem o nome do script, depois os parâmetros que o script irá receber.

## 5 DIREITOS AUTORAIS

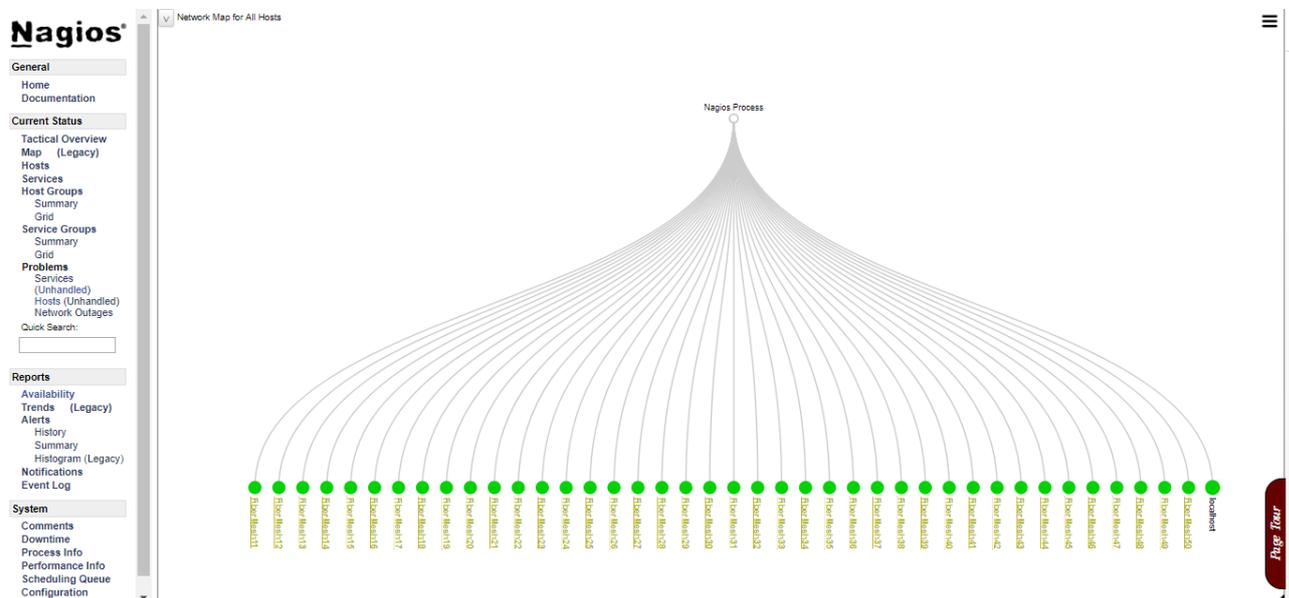
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## 6 ANEXOS

Abaixo algumas capturas de tela do software Nagios® monitorando uma rede FiberMesh.



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### Current Network Status

Last Updated: Wed Aug 22 17:39:20 -03 2018  
Updated every 50 seconds  
Nagios Core™ 4.4.1 - www.nagios.org  
Logged in as nagiosadmin

View Service Status Detail For All Host Groups  
View Host Status Detail For All Host Groups  
View Status Overview For All Host Groups  
View Status Summary For All Host Groups

Host Status Totals				
Up	Down	Unreachable	Pending	
41	0	0	0	0
All Problems All Types				
0	0	0	0	41

Service Status Totals				
Ok	Warning	Unknown	Critical	Pending
126	82	0	0	0
All Problems All Types				
82	0	0	0	208

### Status Grid For All Host Groups

FiberMesh (fiber-mesh)

Host	Services	Actions
FiberMesh11	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh12	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh13	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh14	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh15	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh16	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh17	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh18	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh19	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh20	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh21	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh22	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh23	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh24	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh25	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh26	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh27	ICMP Status FX1 Status FX2 Status FX3 Status FX4	
FiberMesh28	ICMP Status FX1 Status FX2 Status FX3 Status FX4	

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### Alert History

Last Updated: Wed Aug 22 17:39:43 -03 2018  
Nagios Core™ 4.4.1 - www.nagios.org  
Logged in as nagiosadmin

View Status Detail For All Hosts  
View Notifications For All Hosts

### All Hosts and Services

Log File Navigation

Wed Aug 22 00:00:00 -03 2018 to Present.

File: /usr/local/nagios/var/nagios.log

State type options: All state types

History detail level for all hosts: All alerts

Hide Flapping Alerts

Hide Downtime Alerts

Hide Process Messages

Older Entries First

Update

August 22, 2018 15:00

- 08-22-2018 15:51:42 SERVICE\_FLAPPING\_ALERT: FiberMesh24:Status FX4:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:51:09 SERVICE\_FLAPPING\_ALERT: FiberMesh34:ICMP:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:49:26 SERVICE\_FLAPPING\_ALERT: FiberMesh39:Status FX3:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:48:21 SERVICE\_FLAPPING\_ALERT: FiberMesh23:Status FX4:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:48:21 SERVICE\_FLAPPING\_ALERT: FiberMesh22:Status FX3:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:47:46 SERVICE\_FLAPPING\_ALERT: FiberMesh22:Status FX4:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:47:08 SERVICE\_FLAPPING\_ALERT: FiberMesh31:Status FX4:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:44:00 SERVICE\_FLAPPING\_ALERT: FiberMesh42:Status FX4:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:43:13 SERVICE\_FLAPPING\_ALERT: FiberMesh36:Status FX3:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:38:41 SERVICE\_FLAPPING\_ALERT: FiberMesh44:Status FX4:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:38:34 SERVICE\_FLAPPING\_ALERT: FiberMesh37:Status FX3:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)
- 08-22-2018 15:35:40 SERVICE\_FLAPPING\_ALERT: FiberMesh23:Status FX3:STOPPED; Service appears to have stopped flapping (3.8% change < 5.0% threshold)

August 22, 2018 14:00

- 08-22-2018 14:49:04 HOST\_FLAPPING\_ALERT: FiberMesh18:STOPPED; Host appears to have stopped flapping (4.0% change < 5.0% threshold)
- 08-22-2018 14:44:00 HOST\_FLAPPING\_ALERT: FiberMesh28:STOPPED; Host appears to have stopped flapping (3.6% change < 5.0% threshold)
- 08-22-2018 14:43:23 HOST\_FLAPPING\_ALERT: FiberMesh23:STOPPED; Host appears to have stopped flapping (3.6% change < 5.0% threshold)
- 08-22-2018 14:41:48 HOST\_FLAPPING\_ALERT: FiberMesh33:STOPPED; Host appears to have stopped flapping (4.1% change < 5.0% threshold)
- 08-22-2018 14:40:34 HOST\_FLAPPING\_ALERT: FiberMesh35:STOPPED; Host appears to have stopped flapping (4.0% change < 5.0% threshold)
- 08-22-2018 14:40:14 HOST\_FLAPPING\_ALERT: FiberMesh16:STOPPED; Host appears to have stopped flapping (4.4% change < 5.0% threshold)
- 08-22-2018 14:39:48 HOST\_FLAPPING\_ALERT: FiberMesh30:STOPPED; Host appears to have stopped flapping (4.1% change < 5.0% threshold)
- 08-22-2018 14:37:07 SERVICE\_ALERT: FiberMesh20:ICMP:OK:SOFT:1:OK - 10.80.41.20: rta 17.248ms, lost 0%
- 08-22-2018 14:37:00 SERVICE\_ALERT: FiberMesh24:ICMP:OK:SOFT:1:OK - 10.80.41.24: rta 8.838ms, lost 0%
- 08-22-2018 14:36:59 SERVICE\_ALERT: FiberMesh31:ICMP:OK:SOFT:1:OK - 10.80.41.31: rta 7.310ms, lost 0%
- 08-22-2018 14:36:47 SERVICE\_ALERT: FiberMesh32:Status FX1:OK:SOFT:1:OK: UP
- 08-22-2018 14:36:31 SERVICE\_ALERT: FiberMesh14:ICMP:OK:SOFT:1:OK - 10.80.41.14: rta 4.757ms, lost 0%
- 08-22-2018 14:36:27 SERVICE\_ALERT: FiberMesh26:Status FX4:WARNING:HARD:3:WARNING: DOWN

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### Host Alert Histogram

Last Updated: Wed Aug 22 17:44:46 -03 2018  
Nagios Core™ 4.4.1 - www.nagios.org  
Logged in as nagiosadmin

View Trends For This Host  
View Availability Report For This Host  
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### Host 'FiberMesh50'

08-15-2018 17:44:46 to 08-22-2018 17:44:46  
Duration: 7d 0h 0m 0s

Report period: Last 7 Days

Assume state retention: yes

Breakdown type: Day of the Month

Initial states logged: no

Events to graph: All host events

Ignore repeated states: no

State types to graph: Hard and soft states

Update

Event History For Host 'FiberMesh50'

Wed Aug 15 17:44:46 2018 to Wed Aug 22 17:44:46 2018

EVENT TYPE	MIN	MAX	SUM	AVG
Recovery (Up):	0	4	13	0.42
Down:	0	9	22	0.71
Unreachable:	0	0	0	0.00