

在vManage中配置警報電子郵件通知

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簡介

本文檔介紹如何通過vManage為網路中發生的事件配置和傳送電子郵件通知。

必要條件

需求

思科建議您瞭解vManage，並確保vManage版本為18.3.0及更高版本。

採用元件

本文件所述內容不限於特定軟體和硬體版本。

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

設定

要啟用電子郵件通知，需要配置以下步驟。

- 1.編輯來自管理>設定的電子郵件通知。
- 2.從Monitor > Alarms配置Email Notifications。

對於步驟1.，從vManage Dashboard導航到Administration > Settings > Email Notifications > Edit並

配置Enable Email Notifications部分。以下是一個螢幕截圖。

Email Notifications Enabled

Enable Email Notifications: Enabled Disabled

Security: None SSL TLS

SMTP Server: SMTP Port:

From address: Reply to address:

Use SMTP Authentication

Username/Email Address: Password:

您可以根據自己的選擇選擇「發件人」地址，但域名應與郵件伺服器匹配。例如，<..username..>@cisco.com，回覆地址為noreply@cisco.com。因為，如果存在回覆，vManage不會捕獲它。此案例類似於自動生成的帶有無回覆地址的電子郵件。

如果使用者使用的是GMail SMTP伺服器，則GMail與第三方應用整合的方式發生了變化。例如，vManage是GMail的第三方應用。我們需要確保啟用兩步驗證和app-password。您可以在Manage your Google account（管理您的Google帳戶）下的Security（安全）頁籤中設定此設定。在vManage設定下啟用SMTP身份驗證時，請確保使用app-password。

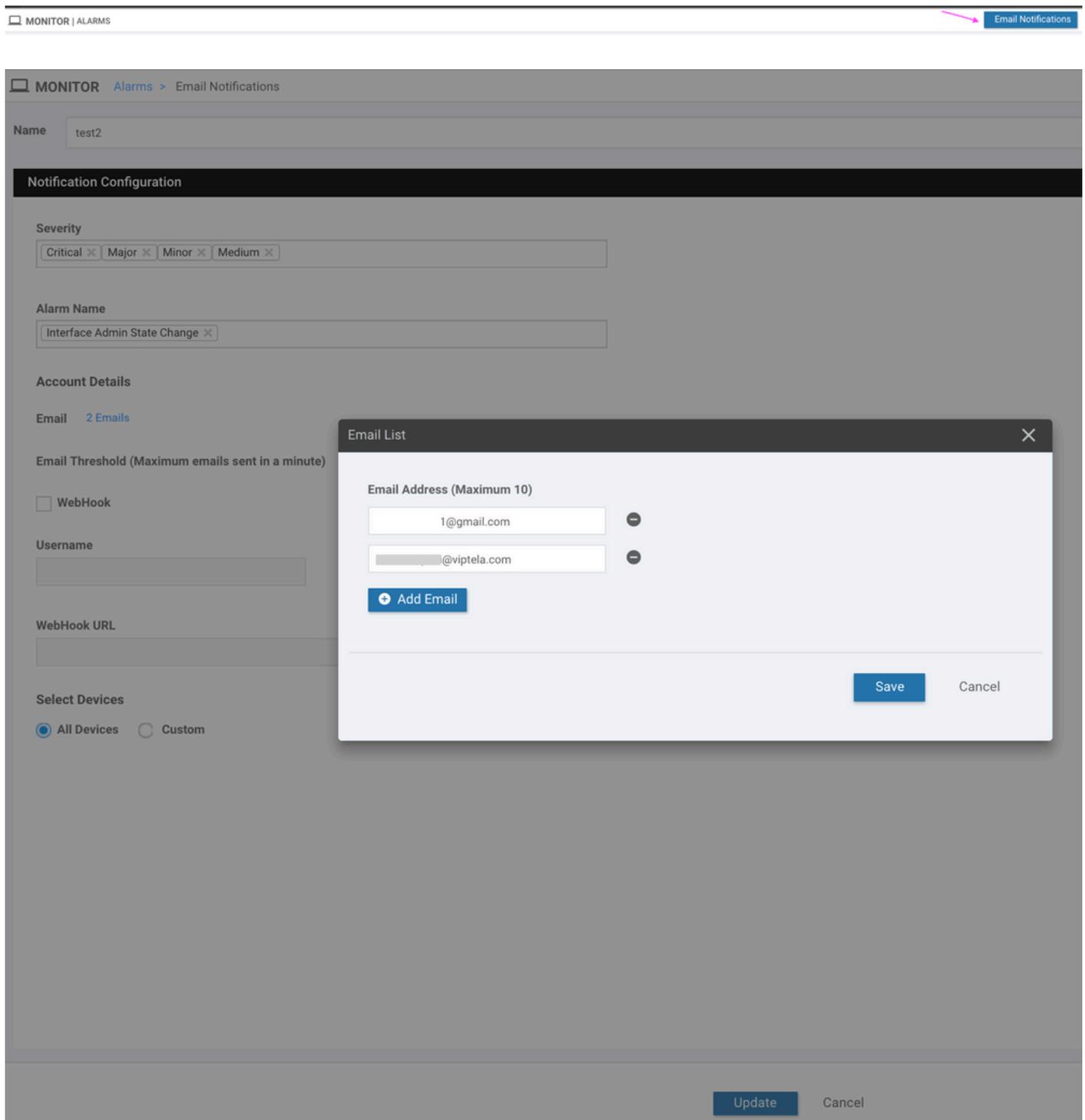
Security

2-Step Verification On

App passwords 1 password

對於步驟2，這包括子步驟，例如Severity、Alarm Name、Email-list和WebHook URL。

螢幕截圖示例：



外部系統使用Webhook向本地系統通知某個事件或更新。它們就像API呼叫

方向相反。可以將HTTP POST從vManage傳送到偵聽此命令的任何服務。例如，當您在vManage中設定一個在AWS中觸及「無伺服器」代碼片段的webhook時，會觸發一個事件，在該組織中尋呼一群人。有多種聯機服務可以連線來執行這些操作。請參閱<https://testwebhooks.com/>。

另一個示例是建立slack內容以接收vManage網路掛接。請參閱<https://api.slack.com/incoming->

[webhooks](#)

電子郵件閾值

Email Notifications頁面中有一個閾值字段。導航至Monitor> Alarms> Email Notifications。

此欄位指示您每分鐘要接收多少封電子郵件。預設情況下，每分鐘最多5封電子郵件。當電子郵件超過該閾值時，您會收到如圖所示的消息。電子郵件在5分鐘內不傳送，然後閾值重新開始。

本文檔的其餘部分捕獲了「電子郵件警報」的使用情況。

記錄檔

檢查vManage日誌：`/var/log/nms/vmanage-server.log`

```
28-Jul-2018 15:51:41,847 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-11) |default| Sending email.....  
28-Jul-2018 15:51:41,854 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-11) |default| Recipient to s....., from vmanage@viptela.com to vmanage@viptela.com  
28-Jul-2018 15:51:41,894 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-14) |default| Sending email.....  
28-Jul-2018 15:51:41,903 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-14) |default| Recipient to s....., from vmanage@viptela.com to vmanage@viptela.com
```

驗證

通過vManage-Dashboard進行驗證。導覽至Monitor > Audit Log，如下圖所示。

Timestamp	User	User IP	Message	Module	Feature	Device	Task ID	
28 Jul 2018 8:51:44 AM PDT	system	1.1.1.5	Email sent to v.....@gmail.com	Email	Email	-	-	...
28 Jul 2018 8:51:43 AM PDT	system	1.1.1.5	Email sent to v.....@gmail.com	Email	Email	-	-	...
28 Jul 2018 8:51:42 AM PDT	system	1.1.1.5	Configuration change event - Device in CLI mode...	device-config	device-config-sync	11.1.1.254	-	...

檢查電子郵件

From: v.....@gmail.com
Subject: [NETWORK EVENT]CriticalInterface_Admin_State_Change
Date: July 28, 2018 at 8:51:41 AM PDT
To:@viptela.com
Reply-To: vmanage@viptela.com

*** This is an automatically generated email, please do not reply ***
An event with following details happened in your network:
Severity: Critical
Event: Interface Admin State Change
Devices: [11.1.1.254]
Hostnames: [ts_vedge_w1]
Occurred on: Sat Jul 28 15:51:41 UTC 2018

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

Check Audit-Log:

目前，vManage Audit-Log可能檢測到電子郵件已傳送，但實際上未收到該電子郵件。您可以通過in/var/log/nms/vmanage-server.log檔案對此進行驗證，如下圖所示。

Timestamp	User	User IP	Message	Module	Feature	Device		
28 Jul 2018 11:49:49 AM PDT	admin	128.107.241.169	Email Notification EmailNotifications updated	Email	Email	--	--	...
28 Jul 2018 11:48:42 AM PDT	system	1.1.1.5	Email sent to [redacted]@com	Email	Email	--	--	...


```
28-Jul-2018 18:48:42,963 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-13) [default] Sending email.....
28-Jul-2018 18:48:42,970 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-13) [default] Recipient to [redacted]@com, from vmanage@viptela.com to vmanage@viptela.com
28-Jul-2018 18:48:43,286 UTC ERROR [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-13) [default] Sending email notification failed :
javax.mail.AuthenticationFailedException: 535-5.7.8 Username and Password not accepted. Learn more at
535 5.7.8 https://support.google.com/mail/?p=BadCredentials_x7-v6sm12675153pgk.9 - gsmtpt
```

並非所有電子郵件警報都是一致生成的：

首先，這取決於為事件集生成多少個警報。vManage會嘗試將事件關聯到一個警報中。否則，它會同時生成多個警報。對於生成的每個警報和規則，都有一封電子郵件。電子郵件通知與警報相關，與事件無關。

其次，如果在第一個規則中，您看到有多個警報，則只有1封郵件傳送與該規則匹配。如果您希望針對單個事件傳送多封電子郵件，請需要定義單個規則。

vmanage-server.logs中的「Username and Password not accepted」：

如螢幕截圖所示，您可能會看到錯誤「Username and Password not accepted (使用者名稱和密碼未被接受)」。深入瞭解在

535 5.7.8<https://support.google.com/mail/?p=BadCredentials> m92sm8305479qte.50 - gsmtpt。儘管如此，它可能在vManage Audit Log上顯示電子郵件確實傳送了。

預設情況下，Gmail帳戶非常安全。使用非Gmail工具的Gmail SMTP時，電子郵件被阻止。若要測試此功能，請執行以下步驟：

1. 登入Gmail。
2. 訪問URL [ashttps://www.google.com/settings/security/lesssecureapps](https://www.google.com/settings/security/lesssecureapps)。
3. 選擇Turn on。

然後，可以通過指定的電子郵件帳戶接收電子郵件通知。

傳送電子郵件通知失敗：

在某些情況下，您可能會看到生成的電子郵件被郵件伺服器拒絕。這可能是因為已提供的帳戶配置可能不正確，或者未授予訪問許可權。在日誌中，您可以看到以下消息

: SendAsDeniedException。

03-Dec-2018 15:46:37,177 CST ERROR [ts_vManage][EmailNotiUtil] (default task-84) |default| Sending email STOREDRV.Submission.Exception:SendAsDeniedException.MapiExceptionSendAsDenied; Failed to process message with message Cannot submit message.

另一個使用情形是使用者每天可以傳送的電子郵件數量因SMTP伺服器而異。您可能會在vManage : 中看到此日誌消息 :

"Sending email notification failed : com.sun.mail.smtp.SMTPSendFailedException: 550 5.4.5 Daily user se

例如，如果是Gmail: <https://support.google.com/a/answer/166852>，則存在限制。

如果您看到以下任一消息，請收集有關vManage與郵件伺服器之間通訊的資料包捕獲。

1. 驗證郵件伺服器是否有響應。

"Sending email notification failed : javax.mail.MessagingException: Could not connect to SMTP host: mai

"Sending email notification failed : javax.mail.MessagingException: Could not convert socket to TLS;"

如果您看到它在憑證後以與以下擷取類似的方式失敗，

2. 檢查郵件伺服器上的證書的有效性。

The screenshot displays a network traffic capture for a TLS handshake. The packet list shows the following details:

- Frame 11: TLSv1.2 Client Hello
- Frame 12: TLSv1.2 Server Hello, Certificate, Server Key Exchange, Server Hello Done

The details pane for Frame 12 shows the following structure:

- Internet Protocol Version 4
- Transmission Control Protocol, Src Port: 25, Dst Port: 45798, Seq: 309, Ack: 287, Len: 927
- Secure Sockets Layer
 - TLSv1.2 Record Layer: Handshake Protocol: Server Hello
 - TLSv1.2 Record Layer: Handshake Protocol: Certificate
 - Content Type: Handshake (22)
 - Version: TLS 1.2 (0x0303)
 - Length: 609
 - Handshake Protocol: Certificate
 - Handshake Type: Certificate (11)
 - Length: 605
 - Certificates Length: 602
 - Certificates (602 bytes)
 - Certificate Length: 599
 - Certificates: 30820253308201bc020111300d06092a864886f70d010105...
 - signedCertificate
 - serialNumber: 17
 - signature (sha1WithRSAEncryption)
 - issuer: runSequence (0)
 - validity
 - notBefore: utcTime (0)
 - utcTime: 11-12-15 08:55:49 (UTC)
 - notAfter: utcTime (0)
 - utcTime: 20-03-02 08:55:49 (UTC)

3. 確認伺服器是否支援STARTTLS。目前，郵件伺服器需要此命令才能使用vManage。 增強功能 [CSCvv40941](#) 已開啟，vManage能夠支援沒有STARTTLS的伺服器

其他驗證檢查

From: [redacted]@gmail.com
Subject: [NETWORK EVENT]MajorBFD_TLOC_Down
Date: July 23, 2018 at 5:46:47 PM PDT
To: [redacted]@viptela.com
Reply-To: vmanage@viptela.com

*** This is an automatically generated email, please do not reply ***
An event with following details happened in your network:
Severity: Major
Event: BFD TLOC Down
Devices: [11.1.1.254]
Hostnames: [ts_vedge_w1]
Occurred on: Tue Jul 24 00:46:45 UTC 2018

From: [redacted]@gmail.com
Subject: [NETWORK EVENT]MediumInterface_State_Change
Date: July 23, 2018 at 12:20:50 PM PDT
To: [redacted]@viptela.com
Reply-To: vmanage@viptela.com

*** This is an automatically generated email, please do not reply ***
An event with following details happened in your network:
Severity: Medium
Event: Interface State Change
Devices: [11.1.1.254]
Hostnames: [ts_vedge_w1]
Occurred on: Mon Jul 23 19:20:50 UTC 2018

From: [redacted]@gmail.com
Subject: [NETWORK EVENT]MediumOMP_Site_Up
Date: July 23, 2018 at 1:07:42 PM PDT
To: [redacted]@viptela.com
Reply-To: vmanage@viptela.com

*** This is an automatically generated email, please do not reply ***
An event with following details happened in your network:
Severity: Medium
Event: OMP Site Up
Devices: [11.1.1.3]
Hostnames: [N/A]
Occurred on: Mon Jul 23 20:07:40 UTC 2018

From: [redacted]@gmail.com
Subject: [NETWORK EVENT] Rule has been added to receive alerts at this address
Date: July 23, 2018 at 10:41:07 AM PDT
To: [redacted]@viptela.com
Reply-To: vmanage@viptela.com

*** This is an automatically generated email, please do not reply ***
This is a test email. Rule has been added in your network for email to be sent to this address

其他錯誤日誌

```
23-Jul-2018 02:11:56,216 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-4) |default| Sending email.....
23-Jul-2018 02:11:56,221 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-4) |default| Recipient to [redacted]@gmail.com, from vmanage@gmail.com to vmanage@gmail.com
23-Jul-2018 02:11:56,358 UTC INFO [ts_vmanage] [EventDataCollector] (device-event-processing-2) || Configuration change event from device. Device IP: [11.1.1.254] Device type: [vedge] User: [admin]
23-Jul-2018 02:11:56,358 UTC INFO [ts_vmanage] [DeviceConfigChangeEventManger] (device-config-0) || Received configuration change event for device 11.1.1.254
23-Jul-2018 02:11:56,423 UTC ERROR [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-4) |default| Sending email notification failed : com.sun.mail.smtp.SMTPSendFailedException: 530-5.5.1 Authentication Required. Learn more at 530 5.5.1 https://support.google.com/mail/?p=WantAuthError_r16-v6sm11748122pfe.173 - gsmtg
```

```
23-Jul-2018 02:18:27,614 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-10) |default| Sending email.....
23-Jul-2018 02:18:27,621 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-10) |default| Recipient to [redacted]@gmail.com, from vmanage@gmail.com to vmanage@gmail.com
23-Jul-2018 02:18:27,836 UTC ERROR [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-11) |default| Sending email notification failed : javax.mail.AuthenticationFailedException: 534-5.7.9 Please log in with your web browser and then try again. Learn more at 534 5.7.9 https://support.google.com/mail/?p=WebLoginRequired_e19-v6sm8747376pgv.48 - gsmtg
```

```
23-Jul-2018 01:38:37,500 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-11) |default| Sending email.....
23-Jul-2018 01:38:37,509 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-11) |default| Recipient to [redacted]@viptela.com, from vmanage@viptela.com to vmanage@viptela.com
23-Jul-2018 01:38:37,885 UTC ERROR [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-11) |default| Sending email notification failed : javax.mail.AuthenticationFailedException: 535-5.7.8 Username and Password not accepted. Learn more at 535 5.7.8 https://support.google.com/mail/?p=BadCredentials_n80-v6sm11951267pfb.95 - gsmtg
```

```
23-Jul-2018 01:51:50,903 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-13) |default| Sending email.....
23-Jul-2018 01:51:50,911 UTC INFO [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-13) |default| Recipient to [redacted]@viptela.com, from vmanage@viptela.com to vmanage@viptela.com
23-Jul-2018 01:51:51,204 UTC ERROR [ts_vmanage] [NotificationsConsumer] (vManage-akka.actor.default-dispatcher-13) |default| Sending email notification failed : javax.mail.AuthenticationFailedException: 534-5.7.9 Application-specific password required. Learn more at 534 5.7.9 https://support.google.com/mail/?p=InvalidSecondFactor_87-v6sm14806588pfb.103 - gsmtg
```

該電子郵件從vManage IP (VPN0傳輸介面的公共IP) 傳送。

Return-Path: <[REDACTED]@gmail.com>
Received: from localhost.localdomain (ec2-[REDACTED]us-west-2.compute.amazonaws.com. [REDACTED].222))
by smtp.gmail.com with ESMTPSA id h62-v6sm22947040pfa.146.2018.10.30.12.32.22
for <[REDACTED]@gmail.com>
(version=TLS1_2 cipher=ECDHE-RSA-AES128-GCM-SHA256 bits=128/128);
Tue, 30 Oct 2018 12:32:23 -0700 (PDT)
From: [REDACTED]@gmail.com
X-Google-Original-From: vmanage@viptela.com
Date: Tue, 30 Oct 2018 19:32:09 +0000 (UTC)
Reply-To: vmanage@viptela.com
To: [REDACTED]@gmail.com
Message-ID: <499401607.28.1540927929205@localhost>
Subject: [NETWORK EVENT]MajorBFD_TLOC_Down
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。