Application Note

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Application Note: DL15249618
Remote Alarm Monitoring for UNIVERGE 3C

Remote Alarm Monitoring for NEC UNIVERGE 3C

Overview

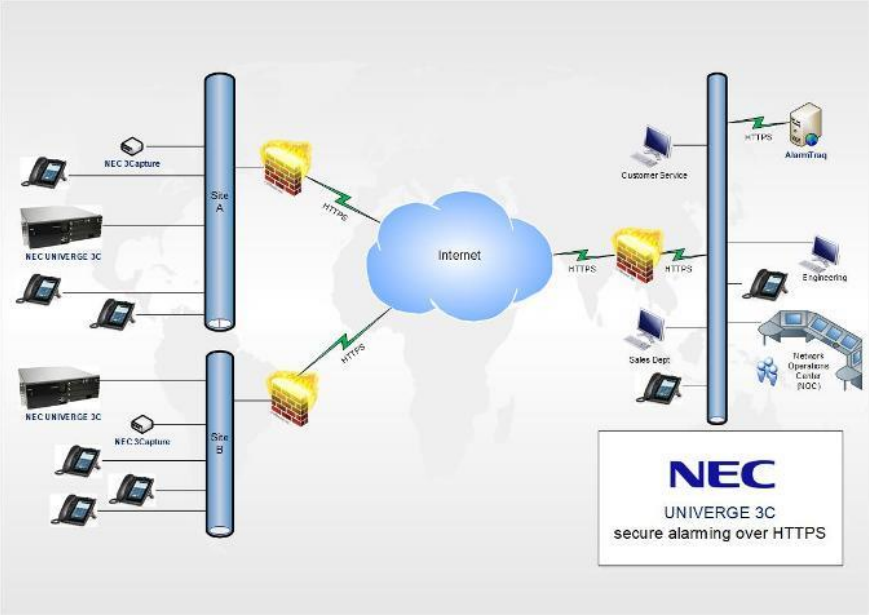
AlarmTraq (www.alarmtraq.com) a leading provider of next-generation remote alarm management solutions has recently teamed up with NEC Enterprise Communications Technologies (NEC), through its UNIVERGE Solutions Partner Program, to provide a secure, remote alarm-monitoring platform for the UNIVERGE 3C. Utilizing a proven delivery methodology based on secure https delivered within a co-managed framework.

The following document provides general guidelines for deploying AlarmTraq to receive alarms and events from your customers UNIVERGE 3C servers using three possible configurations:

1. Using Direct SNMP v3 Notification messages sent from the UNIVERGE 3C to AlarmTraq over open internet
2. Using 3Capture appliance to capture and relay alarms from the UNIVERGE 3C to AlarmTraq using https
3. Using 3Capture appliance to capture and relay alarms from the UNIVERGE 3C to AlarmTraq using https as well as send SNMP v3 Notification messages directly to AlarmTraq as a backup.

Note: The following information is provided as an example for the implementation of AlarmTraq software only and shall not be regarded as a description or warranty of a certain functionality, condition or quality of the software.

For more information on configuring and using AlarmTraq, refer to the Guide and FAQs available in the support section of www.alarmtraq.com



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Introduction

The AlarmTraq platform supports a variety of communication protocols for receiving alerts and transferring alert information to third party platforms. This document describes how to configure AlarmTraq to receive common SNMP trap messages from the UNIVERGE 3C servers as well as secure alerts sent from the "**3Capture"** utility running on the local customer network.

Alarm messages are received in two ways; by direct SNMP v3 traps from the UNIVERGE 3C, or by secure https push messages from the **3Capture** utility.

3Capture for UNIVERGE 3C

Description

Introducing **3Capture**, from the makers of **AlarmTraq**, providing secure alarm monitoring and management services for UNIVERGE 3C unified communications solutions.

3Capture provides secure alarming over https (secure http) between the UNIVERGE 3C and AlarmTraq. The entire https alarm message, including both the headers and the body of the https alarm message are encrypted using public asymmetric encryption algorithms.

Once deployed on your customer's network, **3Capture** receives and acknowledges alarms from the entire family of UNIVERGE 3C products and gateways.

3Capture is a Microsoft Windows service that provides a proactive, holistic approach to monitoring, managing and protecting critical network infrastructures ensuring business continuity.

3Capture incorporates a range of tools and services that perform the following functions:

- Forwards UNIVERGE 3C SNMP v3 traps over secure https to AlarmTraq to trigger alarm notification workflow
- Monitors UNIVERGE 3C Windows Event Logs and uploads to the web service for reporting on demand
- Listens for UNIVERGE 3C syslog messages and uploads to the web service for reporting on demand
- Pings assigned UNIVERGE 3C devices and gateways every 60 seconds and sends notification to AlarmTraq if unreachable for x minutes

3Capture Console

3Capture can be used as a front-end platform to pass UNIVERGE 3C alarms to AlarmTraq or can be used stand-alone to send UNIVERGE 3C alarms to any supported platform used in your NOC (Network Operations Center) using our secure https web service.

3Capture is deployed as a Windows service in either stand-alone or virtual environments including VMware, AWS and Hyper-V.

C:\Users\jim\Documents\Visual Studio 2015\Projects\NEC3Capture\AuroraEventLogProxy\bin\Debug\NEC3Capture.exe

```
Copyright c 2018 Reilly Telecom Inc - All Rights Reserved.
Press any key to stop the service

NEC3Capture 1.0.0.8 Starting...
Computer Name: DELL-T5810
User Name: REILLYTELE\jim
Operating System: Microsoft Windows NT 6.2.9200.0
SNMP Agent using IP address 192.168.1.120
SNMP Trap destination IP Address: 75.149.134.76
SNMP Community String: public
SNMP Maximum traps per minute: 60

Monitoring Windows Event Logs on Servers:
DL380-G5-002.reillytele.com
DL380-G5-003-01.reillytele.com
DL380-G5-VM01.reillytele.com
DL380-G5-003-03.reillytele.com
DELL-OPTI3010.reillytele.com
DELL-T3500.reillytele.com


Monitoring Ping status on Servers:
DL380-G5-003-01
DL380-G5-VM01
DELL-T3500
DL380-G5-001
DELL-OPTI3010.reillytele.com


Compiling SNMP MIB files...
```

AlarmTraq

Description

AlarmTraq is a proactive remote alarm monitoring and management solution in the SMB and large enterprise markets. AlarmTraq runs on Microsoft Windows Server Platforms in either stand-alone or virtual environments including VMware, AWS and Hyper-V.

Creating a more Effective Network Operations Center (NOC)

Your network operations center (NOC) is a control center that is operated by technical staff to continuously monitor and handle incidents related to the health and performance of your customers UNIVERGE 3C unified communications systems, gateways and related infrastructure located in data centers, enterprises, service providers and other entities.

AlarmTraq has the tools you need to monitor the health, history and configuration of all the UNIVERGE 3C communications systems you support:

- Web Interface (NOC View)
- Alarm Descriptions sent by email and via the web.
- Maintenance Object database with most common NEC 3C alarms.
- Monitors UNIVERGE 3C Windows Event Logs and uploads to the web service for reporting on demand.
- Listens for UNIVERGE 3C syslog messages and uploads to the web service for reporting on demand
- Tenant Service to allow multiple service-providers access to alarms.
- Customer Groups to combine several sites into a single page.
- Dispatcher Module take a look at the new Dispatcher Module.

However, invariably there will be incidents that surpass the local capabilities of any given site, and this is where a sophisticated network operations center (NOC) is crucial. With a communications connection to all transmission sites, the NOC constantly monitors the status of all services in the network, responding to any that raises an alarm.

System Requirements

Processor Minimum: 1GHz (x86 processor) or 1.4GHz (x64 processor) Recommended: 2GHz or faster	**Memory** Minimum: 2 GB RAM Recommended: 8 GB RAM or greater
Available Disk Space Minimum: 20GB Recommended: 80GB or greater	**Display and Peripherals** Super VGA (1024 x 768) or higher-resolution monitor Keyboard and compatible pointing device
Operating System Microsoft Windows Server 2012 (x64) Microsoft Windows Server 2008 R2 SP1 (x64) Microsoft Windows Server 2008 SP2 Microsoft Windows Server 2003 SP3	**SQL Server** Minimum: SQL Server 2008 Express R2 Recommended: SQL Server 2017

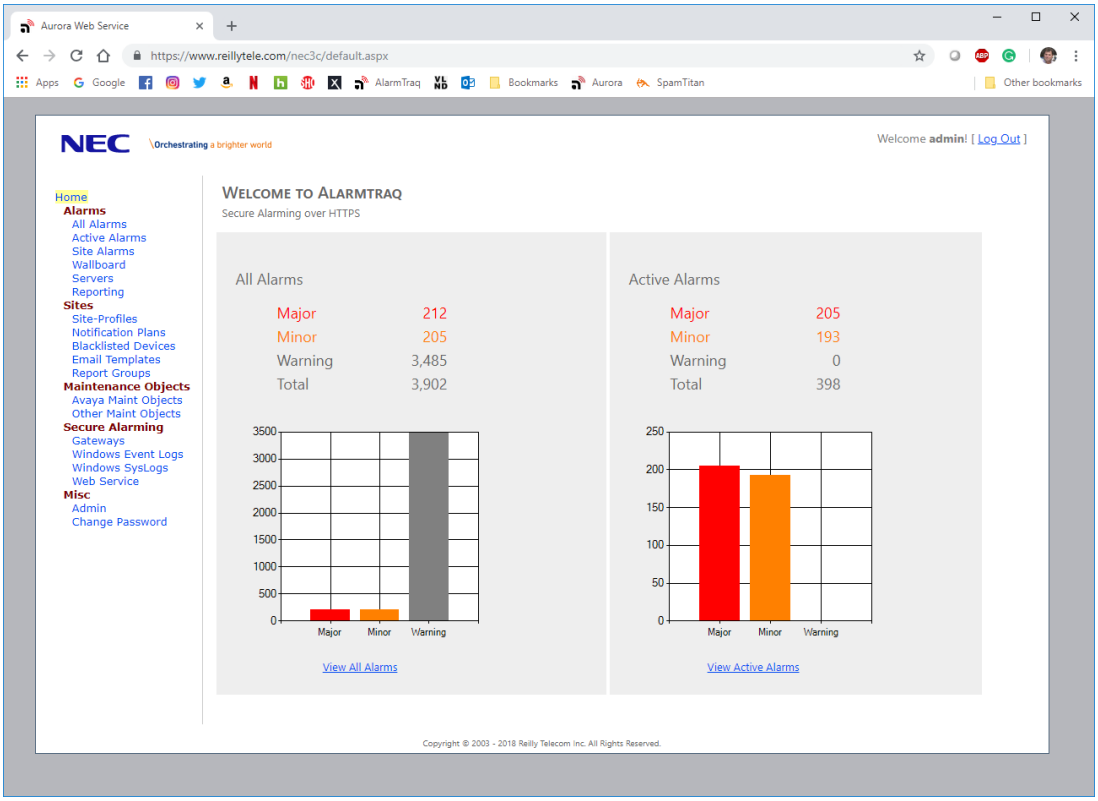
AlarmTraq Web Service

With AlarmTraq, your team can display and monitor all of their communications systems on multi-HD displays. Technicians can easily share data across the network, working collaboratively to diagnose and resolve issues.

Your AlarmTraq Web Service lets you display current or open alarms so you can act quickly to any problem and keep your clients informed. Access to real-time alarms for the communications systems you monitor is crucial to delivering the best customer service and now you have the data to back it up.

The AlarmTraq Web Service receives alarms over secure http. Hypertext Transfer Protocol Secure (https) is a combination of the Hypertext Transfer Protocol with the SSL/TLS protocol to provide encrypted communication and secure identification of a network web server.

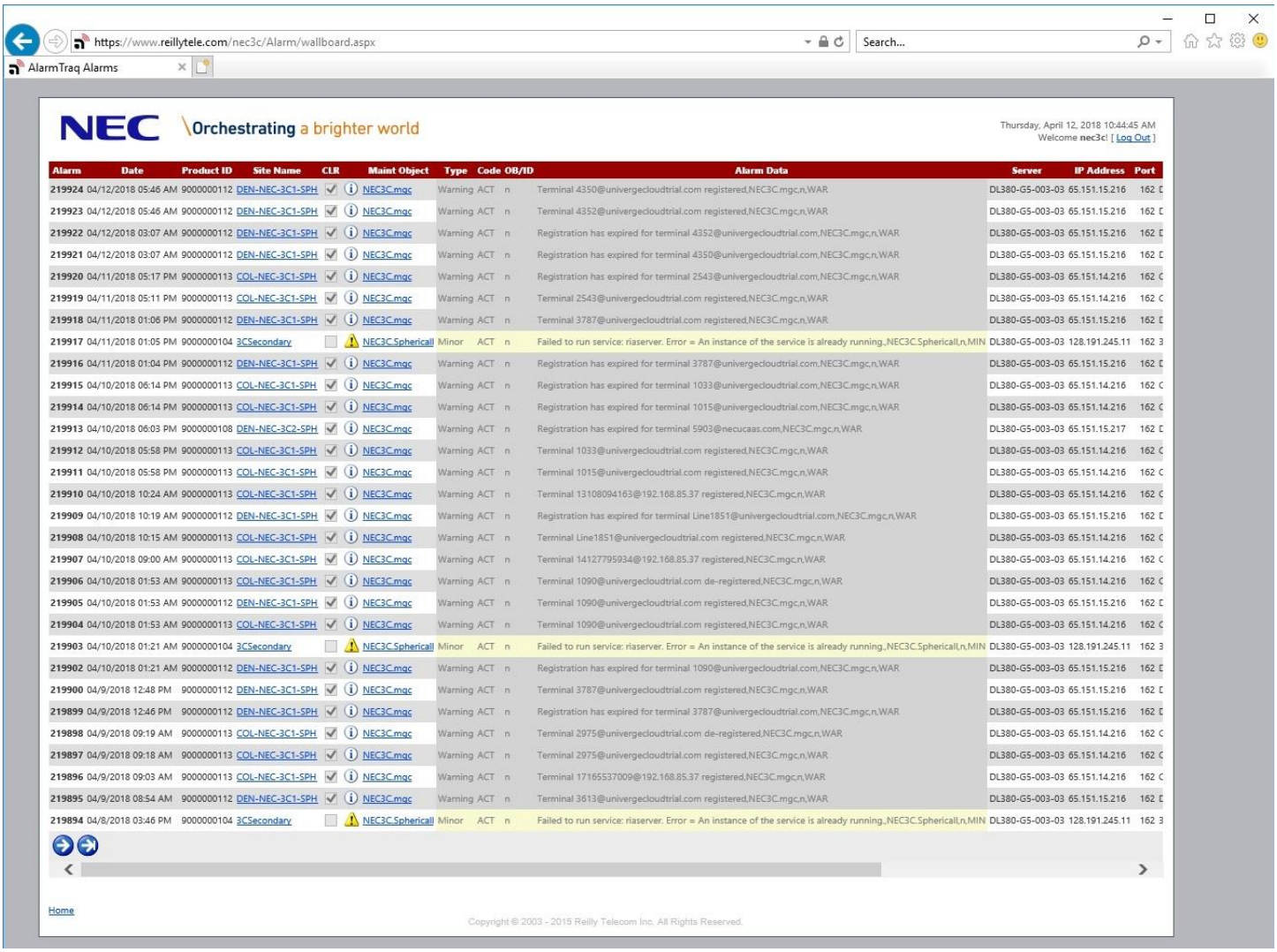
HTTPS connections are often used for payment transactions on the World Wide Web and for sensitive transactions in corporate information systems. The main idea of https is to create a secure channel over an insecure network. This ensures reasonable protection from eavesdroppers and man-in-the-middle attacks, provided that adequate cipher suites are used and that the server certificate is verified and trusted.



Our Web Service securely and seamlessly connects to your infrastructure, providing the most advanced event detection and efficient workflow management. AlarmTraq Web Services and application monitoring services provide detailed metrics and visibility, allowing your NOC monitoring team to react quickly and troubleshoot effectively.

Wallboard and web-based alarm history

Whether you plan on displaying alarm history on a wallboard in your NOC or viewing from your mobile phone, our comprehensive troubleshooting and analysis tools accelerate problem isolation and resolution.



Alarm	Date	Product ID	Site Name	CLR	Maint Object	Type	Code	OB/ID	Alarm Data	Server	IP Address	Port
219924	04/12/2018 05:46 AM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 4350@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219923	04/12/2018 05:46 AM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 4352@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219922	04/12/2018 03:07 AM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Registration has expired for terminal 4352@univergecloudtrial.com,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219921	04/12/2018 03:07 AM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Registration has expired for terminal 4350@univergecloudtrial.com,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219920	04/11/2018 05:17 PM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Registration has expired for terminal 2543@univergecloudtrial.com,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219919	04/11/2018 05:11 PM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 2543@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219918	04/11/2018 01:06 PM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 3787@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219917	04/11/2018 01:05 PM	9000000104	3CSecondary		NEC3C.Sphericall	Minor	ACT	n	Failed to run service: riaserver. Error = An instance of the service is already running.,NEC3C.Sphericall,n,MIN	DL380-G5-003-03	128.191.245.11	162 3
219916	04/11/2018 01:04 PM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Registration has expired for terminal 3787@univergecloudtrial.com,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219915	04/10/2018 06:14 PM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Registration has expired for terminal 1033@univergecloudtrial.com,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219914	04/10/2018 06:14 PM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Registration has expired for terminal 1015@univergecloudtrial.com,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219913	04/10/2018 06:03 PM	9000000108	DEN-NEC-3C2-SPH	✓	NEC3C.mgc	Warning	ACT	n	Registration has expired for terminal 5903@necucaas.com,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.217	162 D
219912	04/10/2018 05:58 PM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 1033@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219911	04/10/2018 05:58 PM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 1015@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219910	04/10/2018 10:24 AM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 13108094163@192.168.85.37 registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219909	04/10/2018 10:19 AM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Registration has expired for terminal Line1851@univergecloudtrial.com,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219908	04/10/2018 10:15 AM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal Line1851@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219907	04/10/2018 09:00 AM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 14127795934@192.168.85.37 registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219906	04/10/2018 01:53 AM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 1090@univergecloudtrial.com de-registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219905	04/10/2018 01:53 AM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 1090@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219904	04/10/2018 01:53 AM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 1090@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219903	04/10/2018 01:21 AM	9000000104	3CSecondary		NEC3C.Sphericall	Minor	ACT	n	Failed to run service: riaserver. Error = An instance of the service is already running.,NEC3C.Sphericall,n,MIN	DL380-G5-003-03	128.191.245.11	162 3
219902	04/10/2018 01:21 AM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Registration has expired for terminal 1090@univergecloudtrial.com,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219900	04/9/2018 12:48 PM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 3787@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219899	04/9/2018 12:46 PM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Registration has expired for terminal 3787@univergecloudtrial.com,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219898	04/9/2018 09:19 AM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 2975@univergecloudtrial.com de-registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219897	04/9/2018 09:18 AM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 2975@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219896	04/9/2018 09:03 AM	9000000113	COL-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 17165537009@192.168.85.37 registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.14.216	162 C
219895	04/9/2018 08:54 AM	9000000112	DEN-NEC-3C1-SPH	✓	NEC3C.mgc	Warning	ACT	n	Terminal 3613@univergecloudtrial.com registered,NEC3C.mgc,n,WAR	DL380-G5-003-03	65.151.15.216	162 D
219894	04/8/2018 03:46 PM	9000000104	3CSecondary		NEC3C.Sphericall	Minor	ACT	n	Failed to run service: riaserver. Error = An instance of the service is already running.,NEC3C.Sphericall,n,MIN	DL380-G5-003-03	128.191.245.11	162 3

Wallboard View

Windows Event Logs

3Capture monitors UNIVERGE 3C Windows Event Logs and uploads to the web service for reporting on demand.

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Wednesday, September 26, 2018 2:31:40 PM
Welcome **admin**! [Log Out]

Windows Event Logs
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Product ID	Name	Logged	Source	ID	Lvl	Message
9000000111	3C1.sphere12.local	4/5/2018 1:47:55 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE WITH DIFFERENTIAL successfully processed 65 pages in 0.194 seconds (2.584 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 1:47:55 AM	MSSQL$NEC3C	1073760094	4	Database differential changes were backed up. Database: pbx, creation date(time): 2018/01/19(10:13:47), pages dumped: 77, first LSN: 525:217:1, last LSN: 525:220:1, full backup LSN: 525:162:52, number of dump devices: 1,
9000000111	3C1.sphere12.local	4/5/2018 1:32:54 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE WITH DIFFERENTIAL successfully processed 65 pages in 0.115 seconds (4.360 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 1:32:54 AM	MSSQL$NEC3C	1073760094	4	Database differential changes were backed up. Database: pbx, creation date(time): 2018/01/19(10:13:47), pages dumped: 77, first LSN: 525:214:1, last LSN: 525:217:1, full backup LSN: 525:162:52, number of dump devices: 1,
9000000111	3C1.sphere12.local	4/5/2018 1:17:55 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE WITH DIFFERENTIAL successfully processed 65 pages in 0.154 seconds (3.256 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 1:17:55 AM	MSSQL$NEC3C	1073760094	4	Database differential changes were backed up. Database: pbx, creation date(time): 2018/01/19(10:13:47), pages dumped: 77, first LSN: 525:211:1, last LSN: 525:214:1, full backup LSN: 525:162:52, number of dump devices: 1,
9000000111	3C1.sphere12.local	4/5/2018 1:02:54 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE WITH DIFFERENTIAL successfully processed 65 pages in 0.100 seconds (5.014 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 1:02:54 AM	MSSQL$NEC3C	1073760094	4	Database differential changes were backed up. Database: pbx, creation date(time): 2018/01/19(10:13:47), pages dumped: 77, first LSN: 525:208:1, last LSN: 525:211:1, full backup LSN: 525:162:52, number of dump devices: 1,
9000000111	3C1.sphere12.local	4/5/2018 1:01:15 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE successfully processed 634 pages in 0.544 seconds (9.091 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 1:01:02 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE successfully processed 634 pages in 1.891 seconds (2.616 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 1:00:06 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE WITH DIFFERENTIAL successfully processed 65 pages in 0.184 seconds (2.759 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 1:00:06 AM	MSSQL$NEC3C	1073760094	4	Database differential changes were backed up. Database: pbx, creation date(time): 2018/01/19(10:13:47), pages dumped: 77, first LSN: 525:192:34, last LSN: 525:208:1, full backup LSN: 525:162:52, number of dump devices: 1
9000000111	3C1.sphere12.local	4/5/2018 1:00:03 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE successfully processed 2098 pages in 3.580 seconds (4.577 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 1:00:02 AM	3C CallLogger	1073741929	4	Call log maintenance is complete.
9000000111	3C1.sphere12.local	4/5/2018 1:00:02 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE successfully processed 466 pages in 1.138 seconds (3.192 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 1:00:00 AM	3C CallLogger	1073741928	4	Call log maintenance starting...
9000000111	3C1.sphere12.local	4/5/2018 12:47:55 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE WITH DIFFERENTIAL successfully processed 65 pages in 0.324 seconds (1.547 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 12:47:55 AM	MSSQL$NEC3C	1073760094	4	Database differential changes were backed up. Database: pbx, creation date(time): 2018/01/19(10:13:47), pages dumped: 77, first LSN: 525:156:1, last LSN: 525:159:1, full backup LSN: 524:577:52, number of dump devices: 1,
9000000111	3C1.sphere12.local	4/5/2018 12:32:54 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE WITH DIFFERENTIAL successfully processed 65 pages in 0.136 seconds (3.687 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 12:32:54 AM	MSSQL$NEC3C	1073760094	4	Database differential changes were backed up. Database: pbx, creation date(time): 2018/01/19(10:13:47), pages dumped: 77, first LSN: 525:153:1, last LSN: 525:156:1, full backup LSN: 524:577:52, number of dump devices: 1,
9000000111	3C1.sphere12.local	4/5/2018 12:17:54 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE WITH DIFFERENTIAL successfully processed 65 pages in 0.168 seconds (2.984 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 12:17:54 AM	MSSQL$NEC3C	1073760094	4	Database differential changes were backed up. Database: pbx, creation date(time): 2018/01/19(10:13:47), pages dumped: 77, first LSN: 525:150:1, last LSN: 525:153:1, full backup LSN: 524:577:52, number of dump devices: 1,
9000000111	3C1.sphere12.local	4/5/2018 12:02:54 AM	MSSQL$NEC3C	1073744838	4	BACKUP DATABASE WITH DIFFERENTIAL successfully processed 65 pages in 0.107 seconds (4.686 MB/sec).
9000000111	3C1.sphere12.local	4/5/2018 12:02:54 AM	MSSQL$NEC3C	1073760094	4	Database differential changes were backed up. Database: pbx, creation date(time): 2018/01/19(10:13:47), pages dumped: 77, first LSN: 525:147:1, last LSN: 525:150:1, full backup LSN: 524:577:52, number of dump devices: 1,

Syslog Messages

3Capture Listens for UNIVERGE 3C syslog messages and uploads to the web service for reporting on demand.

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Wednesday, September 26, 2018 2:32:52 PM
Welcome **admin**! [Log Out]

Windows SysLogs
Page 1 of 22 (526 Records)

IP Address	Priority	Date	Name	Source	User	Message
65.151.15.218	<12>	2018-04-04T16:46:04.011Z	DEN-NEC-3C3-SPH	admin	NECU3\jim.miller	Adding user: "NECU3\Matthew Hruska"
65.151.15.218	<12>	2018-04-04T16:46:04.002Z	DEN-NEC-3C3-SPH	admin	NECU3\jim.miller	User account: "NECU3\Matthew Hruska" rights have changed
65.151.15.218	<13>	2018-04-04T16:46:01.372Z	DEN-NEC-3C3-SPH	admin	NECU3\jim.miller	User account: "NECU3\Matthew Hruska" access rights have changed
65.151.15.218	<12>	2018-04-04T16:46:01.284Z	DEN-NEC-3C3-SPH	admin	NECU3\jim.miller	User account: "NECU3\Matthew Hruska" rights have changed
65.151.15.218	<13>	2018-04-04T16:46:00.942Z	DEN-NEC-3C3-SPH	admin	NECU3\jim.miller	User account: "NECU3\Matthew Hruska" addresses have changed
65.151.15.218	<13>	2018-04-04T16:45:00.802Z	DEN-NEC-3C3-SPH	admin	NECU3\jim.miller	Creating new AD user account: "Matthew Hruska" - Logon name:"Matthew Hruska@necu3.com"
65.151.15.218	<13>	2018-04-04T16:42:08.554Z	DEN-NEC-3C3-SPH	admin	NECU3\jim.miller	User account: "" addresses have changed
65.151.14.219	<12>	2018-03-28T16:43:31.415Z	LOU-NEC-3C4-SPH	admin	NECU4\kcoombes	User account: "NECU4\kcoombes" rights have changed
65.151.14.219	<12>	2018-03-28T16:43:30.516Z	LOU-NEC-3C4-SPH	admin	NECU4\kcoombes	User account: "NECU4\kcoombes" rights have changed
65.151.14.219	<12>	2018-03-28T16:43:28.420Z	LOU-NEC-3C4-SPH	admin	NECU4\kcoombes	User account: "NECU4\kcoombes" rights have changed
65.151.15.218	<14>	2018-03-21T17:42:24.324Z	DEN-NEC-3C3-SPH	admin	NECU3\mitesh.joshi	Admin application exited
65.151.15.217	<13>	2018-03-21T13:21:31.896Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	MGStation "0060b95dd3c5"- LineID = "5060" In service
65.151.15.217	<13>	2018-03-21T13:21:31.819Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	Terminal "5060@necucaas.com" registered
65.151.15.217	<13>	2018-03-21T13:21:31.643Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	Terminal "5060@necucaas.com" de-registered
65.151.15.217	<13>	2018-03-21T00:43:29.336Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	MGStation "0060b95dd3c5"- LineID = "5060" In service
65.151.15.217	<13>	2018-03-21T00:43:29.260Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	Terminal "5060@necucaas.com" registered
65.151.15.217	<13>	2018-03-21T00:43:29.154Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	Terminal "5060@necucaas.com" de-registered
65.151.15.217	<13>	2018-03-21T00:38:00.656Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	MGStation "0060b95dd3c5"- LineID = "5060" In service
65.151.15.217	<13>	2018-03-21T00:38:00.581Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	Terminal "5060@necucaas.com" registered
65.151.15.217	<13>	2018-03-21T00:38:00.475Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	Terminal "5060@necucaas.com" de-registered
65.151.15.217	<13>	2018-03-21T00:34:17.764Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	MGStation "0060b95dd3c5"- LineID = "5060" In service
65.151.15.217	<13>	2018-03-21T00:34:17.690Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	Terminal "5060@necucaas.com" registered
65.151.15.217	<13>	2018-03-21T00:34:16.854Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	Terminal "5060@necucaas.com" de-registered
65.151.15.217	<13>	2018-03-21T00:31:28.267Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	MGStation "0060b95dd3c5"- LineID = "5060" In service
65.151.15.217	<13>	2018-03-21T00:31:28.186Z	DEN-NEC-3C2-SPH	mgc	NECUCAAS\SRV3CMediaServer	Terminal "5060@necucaas.com" registered

Receive alarms as SNMP v3 Notification Messages

The UNIVERGE 3C can send alarms as SNMP version 3c Notification Messages directly to AlarmTraq, **3Capture** is not required if alarming using only SNMP v3 traps (no Windows Event Logs or Syslog messages will be collected).

SNMP version 3 primarily added security and encryption to SNMP. Security has been the biggest weakness of SNMP since the beginning. Authentication in SNMP Versions 1 and 2 amounts to nothing more than a password (community string) sent in clear text between a manager and agent.

Each SNMPv3 notification message contains security parameters which are encoded as an octet string. The meaning of these security parameters depends on the security model being used. SNMPv3 provides important security features:

- Confidentiality - Encryption of packets to prevent snooping by an unauthorized source.
- Integrity - Message integrity to ensure that a packet has not been tampered with in transit.
- Authentication - to verify that the message is from a valid source.

```
*******************************************************************************
3:52:54 PM SYS NotificationMessage received from host 192.168.1.104

      Agent IP: 192.168.1.104
    Enterprise: 1.3.6.1.4.1.48079.2 [nececttraps]
  Message Type: NotificationMessage
  SNMP Version: Three
  SNMP v3 User: necAdmin
 Auth Protocol: SHA1
 Priv Protocol: AES256
     Community: public
      Trap OID: 1.3.6.1.4.1.48079.2.1 [trapMajor]
 Original Port: 162

[1.3.6.1.4.1.48079.1.1] [nec3CTrapHostName] COL-NEC-3C2-SPH
[1.3.6.1.4.1.48079.1.2] [nec3CTrapIPAddress] 192.168.85.46
[1.3.6.1.4.1.48079.1.3] [nec3CTrapComponentName] mgc
[1.3.6.1.4.1.48079.1.4] [nec3CTrapMessage] Trunk Col-NEC-FS@65.152.110.98 Out of service. 0
channels are connected
[1.3.6.1.4.1.48079.1.5] [nec3CTrapAlarmLevel] MAJ

The 3C UCM has issued a Major trap. The variables describe the location and nature of the trap.

Processing alarm as: 9000000117 26/15:52,EOF,ACT|Trunk Col-NEC-FS@65.152.110.98 Out of service.
0 channels are connected,NEC3C.mgc,n,MAJ
Alarm 223882 processed successfully.
```

Sample SNMP Trap

We will need to match the SNMPv3 setting on AlarmTraq before you can receive SNMPv3 trap notification messages from the NEC 3C. Please provide the following SNMPv3 information:

1. User name
2. Security Model (privacy)
3. Authentication Password
4. Authentication Protocol (Md5, Sha)

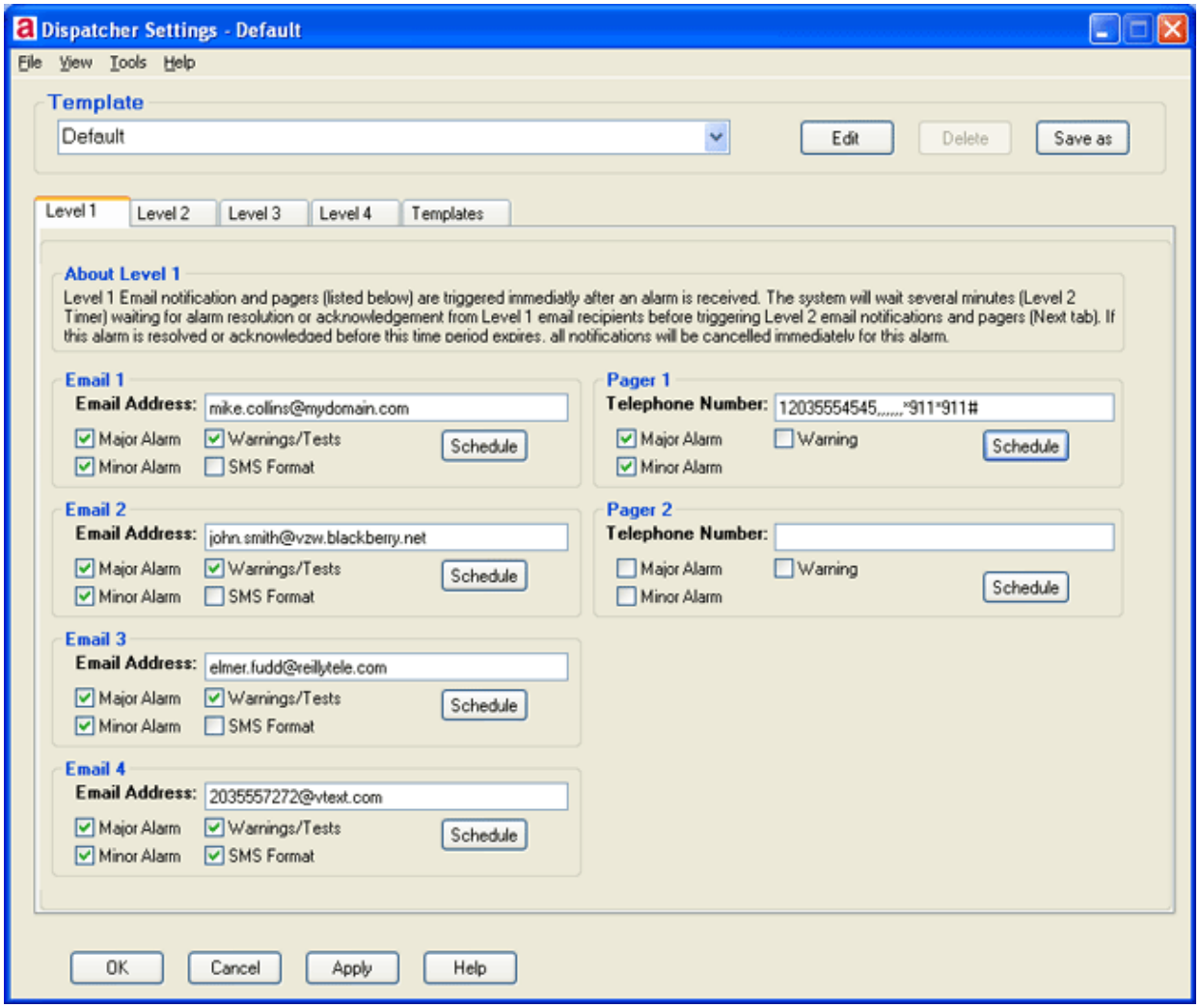
5. Privacy Password
6. Privacy Protocol (Des, TripleDes, Aes128, Aes192, Aes256)

Email Notification Plans

AlarmTraq uses multi-level escalation that will upon receiving an alarm, immediately trigger a Level 1 notification, which can include up to 4 email fields. AlarmTraq provides email notification to support personal in a timed fashion, until an alarm has either been resolved by the system, or an acknowledgment reply has been received by support staff.

- Comprehensive notification using dynamic scheduling.
- Cascading notification for support personnel based on specific sites.
- Multi-level escalation from technicians to managers to directors, ensuring only the right person is being escalated to.
- Ability to write notification templates to apply to multiple sites easily.
- Allows support personnel to acknowledge alarms via email or mobile phone.
- Web-based status of active alarms.

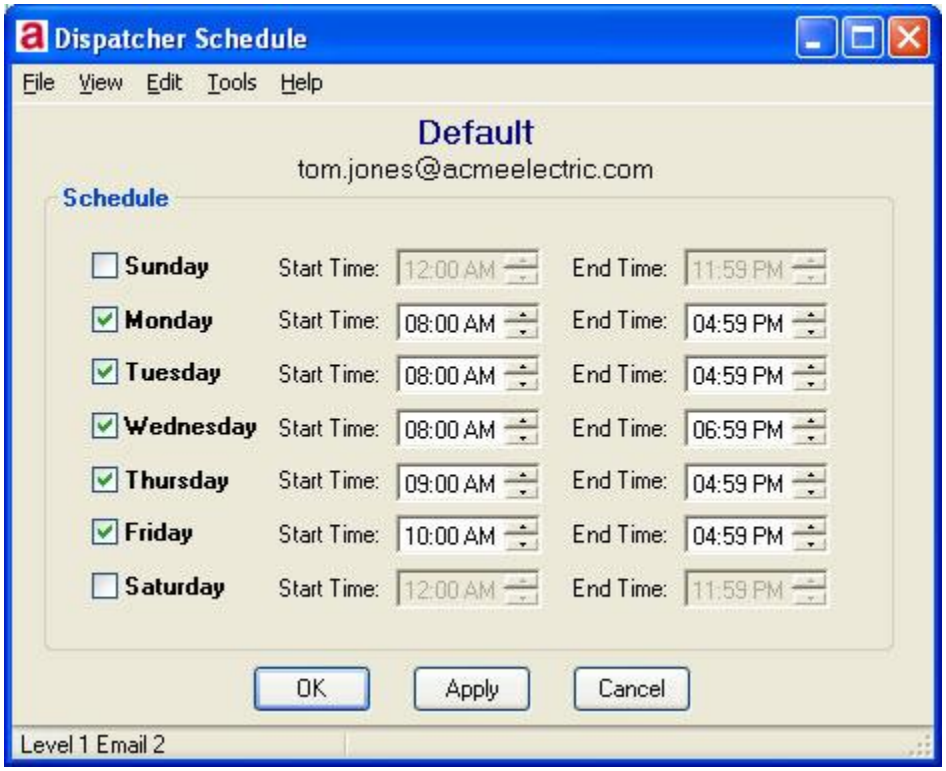
With Notification templates you can setup a plan one time and apply it to as many sites as you like. When your on-call schedule changes, simply modify the template and they are immediately applied to all sites assigned to that template.



Notification Plans

Notification Schedules

Now your email/pager notification can be can be tailored to notify you of alarms on the days of the week and the times you choose. Have alarms sent to your desktop during normal business hours and to your mobile phone, Blackberry or PDA at night and on weekends. Easily set the day, hour, and the method of notification to all alarms and events.



Schedule

All sites are assigned a notification plan that will be used to set the email addresses and pagers. A new "Default" template is used for sites created manually or automatically by AlarmTraq to ensure your sites are covered from day one of service.

If the email address used for your on-call support personnel needs to be changed, you simply open the notification plan and make the change once, and every site assigned to that notification plan will use the new values.

This allows multi-level escalation from technicians to managers to directors, ensuring only the right person is being escalated to.

Dynamic Email Notification

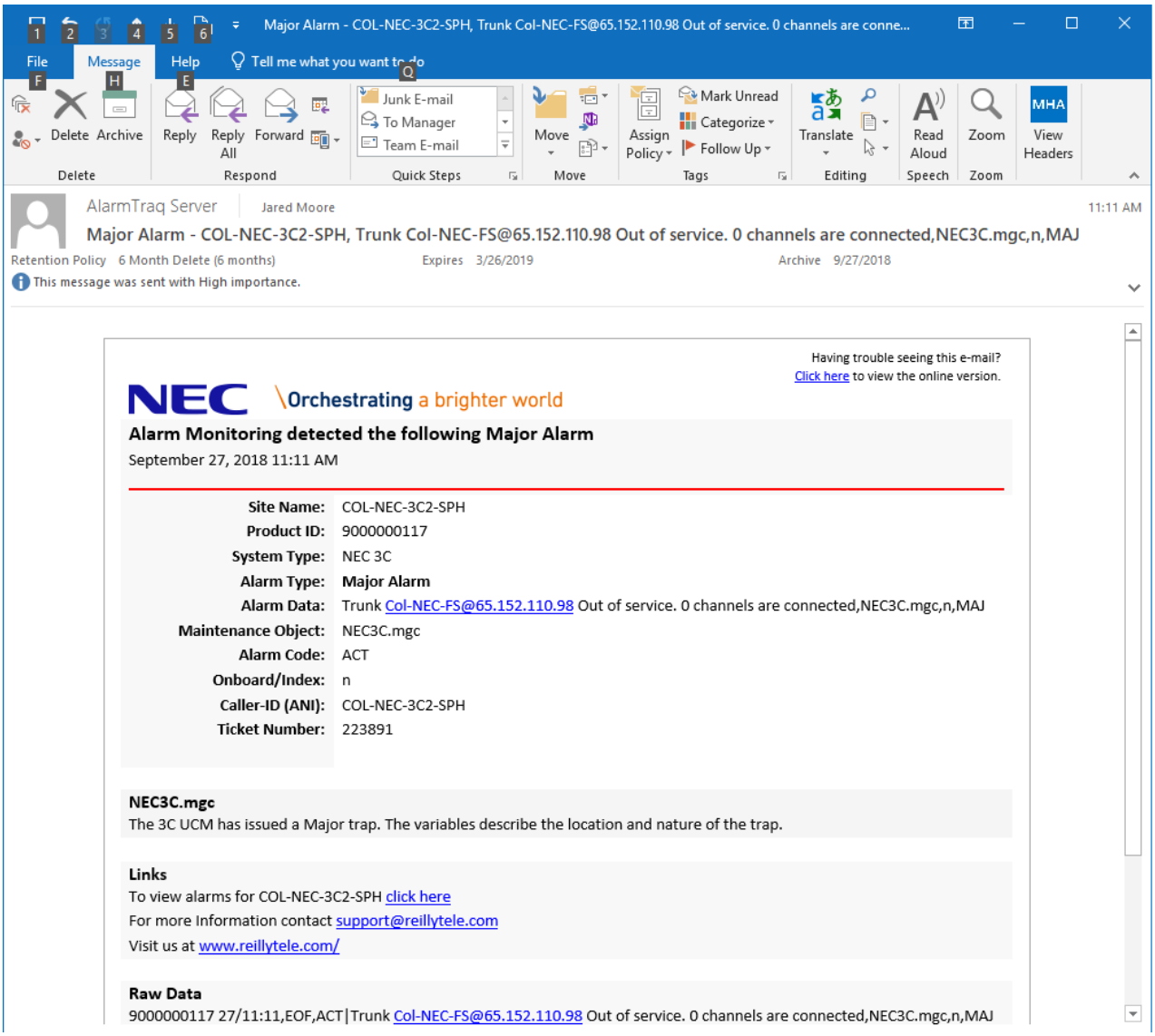
You can specify actions that the system performs when the alarm is received or changes status. You can enable and disable alarms and alarm actions independently of each other. You can use the SMTP agent included with AlarmTraq to send email notifications when alarms are triggered.

You can establish one or more notification schedules for each defined notification plan. These notification schedules allow you receive email notifications at a specific time of day or day of week.

Custom Email Templates

A custom email template is a file that contains static HTML code and flexible template code consisting of special types of variables. When an alarm occurs, AlarmTraq replaces these variables with the values contained in the alarm data and site profiles and produces an HTML email message that is sent to the tech or customer.

AlarmTraq includes templates, suitable for most users' needs, that eliminate the need to manually create an HTML template that displays the alarm information in an email.

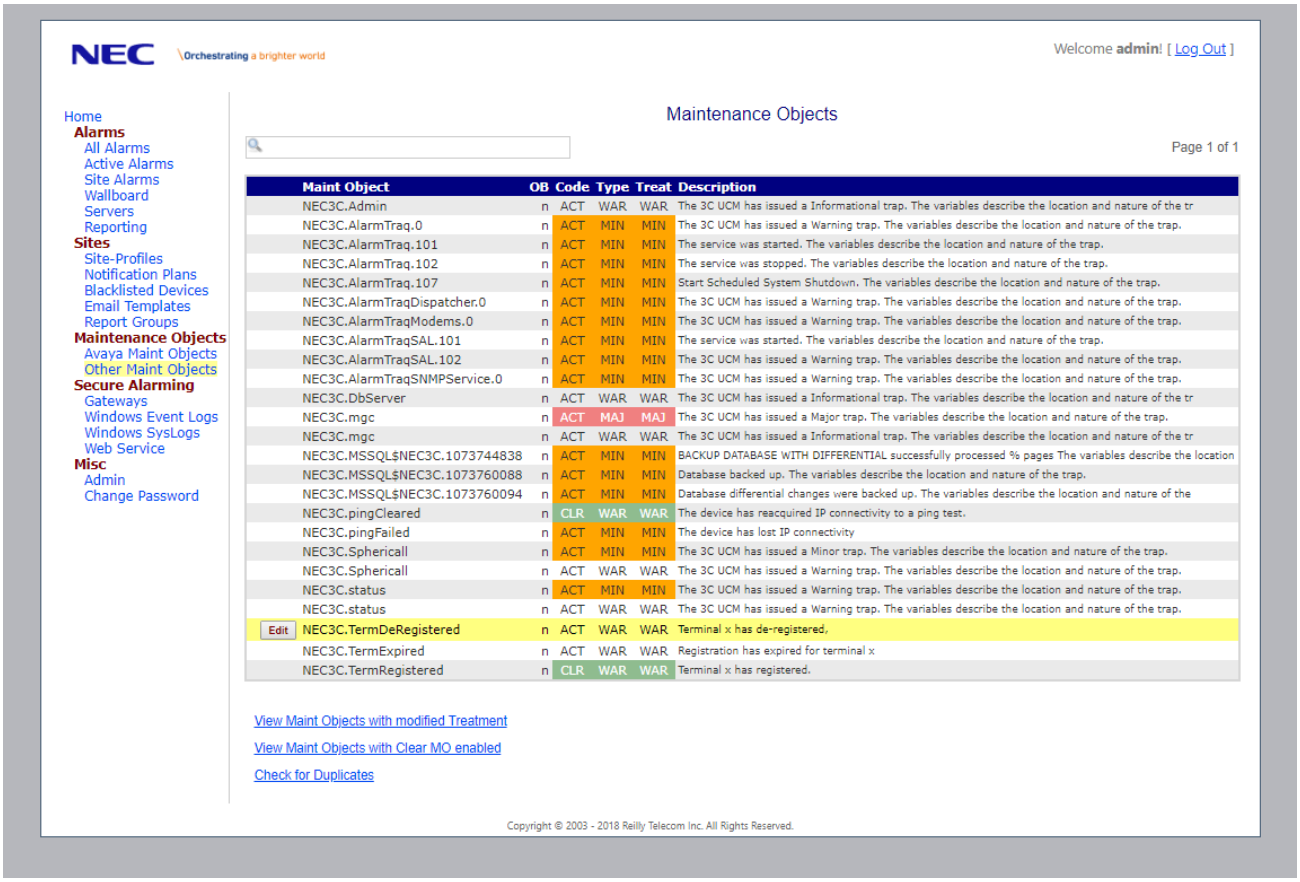


Sample email notification

Maintenance Object Library

AlarmTraq includes an UNIVERGE 3C Maintenance Object Library with dozens of common pre-defined events instructing the system how to respond to individual alarms and errors.

When an alarm is received, AlarmTraq will automatically query the database and respond to the alarm with pre-assigned alarm treatment found in the Maintenance Object Library in order to reduce notification of repeat alarms.



	Maint Object	OB	Code	Type	Treat	Description
	NEC3C.Admin	n	ACT	WAR	WAR	The 3C UCM has issued a Informational trap. The variables describe the location and nature of the tr
	NEC3C.AlarmTraq.0	n	ACT	MIN	MIN	The 3C UCM has issued a Warning trap. The variables describe the location and nature of the trap.
	NEC3C.AlarmTraq.101	n	ACT	MIN	MIN	The service was started. The variables describe the location and nature of the trap.
	NEC3C.AlarmTraq.102	n	ACT	MIN	MIN	The service was stopped. The variables describe the location and nature of the trap.
	NEC3C.AlarmTraq.107	n	ACT	MIN	MIN	Start Scheduled System Shutdown. The variables describe the location and nature of the trap.
	NEC3C.AlarmTraqDispatcher.0	n	ACT	MIN	MIN	The 3C UCM has issued a Warning trap. The variables describe the location and nature of the trap.
	NEC3C.AlarmTraqModems.0	n	ACT	MIN	MIN	The 3C UCM has issued a Warning trap. The variables describe the location and nature of the trap.
	NEC3C.AlarmTraqSAL.101	n	ACT	MIN	MIN	The service was started. The variables describe the location and nature of the trap.
	NEC3C.AlarmTraqSAL.102	n	ACT	MIN	MIN	The 3C UCM has issued a Warning trap. The variables describe the location and nature of the trap.
	NEC3C.AlarmTraqSNMPService.0	n	ACT	MIN	MIN	The 3C UCM has issued a Warning trap. The variables describe the location and nature of the trap.
	NEC3C.DbServer	n	ACT	WAR	WAR	The 3C UCM has issued a Informational trap. The variables describe the location and nature of the tr
	NEC3C.mgc	n	ACT	MAJ	MAJ	The 3C UCM has issued a Major trap. The variables describe the location and nature of the trap.
	NEC3C.mgc	n	ACT	WAR	WAR	The 3C UCM has issued a Informational trap. The variables describe the location and nature of the tr
	NEC3C.MSSQL$NEC3C.1073744838	n	ACT	MIN	MIN	BACKUP DATABASE WITH DIFFERENTIAL successfully processed % pages The variables describe the location
	NEC3C.MSSQL$NEC3C.1073760088	n	ACT	MIN	MIN	Database backed up. The variables describe the location and nature of the trap.
	NEC3C.MSSQL$NEC3C.1073760094	n	ACT	MIN	MIN	Database differential changes were backed up. The variables describe the location and nature of the
	NEC3C.pingCleared	n	CLR	WAR	WAR	The device has reacquired IP connectivity to a ping test.
	NEC3C.pingFailed	n	ACT	MIN	MIN	The device has lost IP connectivity
	NEC3C.Sphericall	n	ACT	MIN	MIN	The 3C UCM has issued a Minor trap. The variables describe the location and nature of the trap.
	NEC3C.Sphericall	n	ACT	WAR	WAR	The 3C UCM has issued a Warning trap. The variables describe the location and nature of the trap.
	NEC3C.status	n	ACT	MIN	MIN	The 3C UCM has issued a Warning trap. The variables describe the location and nature of the trap.
	NEC3C.status	n	ACT	WAR	WAR	The 3C UCM has issued a Warning trap. The variables describe the location and nature of the trap.
Edit	NEC3C.TermDeRegistered	n	ACT	WAR	WAR	Terminal x has de-registered.
	NEC3C.TermExpired	n	ACT	WAR	WAR	Registration has expired for terminal x
	NEC3C.TermRegistered	n	CLR	WAR	WAR	Terminal x has registered.

Maintenance Object Library

Alarm Code- Enter a valid alarm code. Valid configurations are:

- ACT
- RES
- RST
- CLR

Alarm Type - Enter a valid alarm type. Valid configurations are:

- MAJ - Major Alarm
- MIN - Minor Alarm
- WAR - Warning Message

On Board - Enter y, n or a number (0-255)

Treatment - Enter the alarm treatment type. Valid configurations are:

- MAJ - Treat as a Major Alarm

- MIN - Treat as a Minor Alarm
- WAR - Treat as a Warning Message
- NONE - Record alarm but cancel all email notification
- DROP - Reject alarm and cancel all email notification

Links

AlarmTraq
https://www.alarmtraq.com/

AlarmTraq Version 9.0
https://www.alarmtraq.com/9.0/alarmtraq-version-90.php

3Capture for UNIVERGE 3C
https://www.alarmtraq.com/nec/nec3c.php

System Requirements
https://www.alarmtraq.com/support/system-requirements-alarmtraq.php

Alternate Alarm Type
https://www.alarmtraq.com/features/feature-alternate-alarm-type.php

Repeat Alarms
https://www.alarmtraq.com/features/feature-repeat-alarm.php

Notification Rules
https://www.alarmtraq.com/how-it-works/custom-rules-to-disable-notifications.php

Tenant Service
https://www.alarmtraq.com/features/feature-tenant-service.php

Server Clustering
https://www.alarmtraq.com/how-it-works/alarmtraq-server-clustering.php

Installation
https://www.alarmtraq.com/support/alarmtraq-new-installation.php

"How Do I?" Videos
https://www.alarmtraq.com/how-it-works/how-to-videos.php

Software Support Policy
https://www.alarmtraq.com/support/software-support-policy.php

Software Support Plans

https://www.alarmtraq.com/products/software-support-plans.php

Privacy Policy
https://www.alarmtraq.com/privacy.php

About Us

REILLY TELECOM, Inc., is committed to protecting the privacy of our customers, prospective customers, and website visitors, and we strictly adhere to a policy that protects the personal and organizational data of all such parties. Under no circumstances will we sell or otherwise divulge to a third party any data we collect, nor will we use this data for any purposes other than our own marketing and internal needs.

Contact Us

800-394-2173 or 203-234-9115

Product Feedback and Comments
https://www.alarmtraq.com/contact/

Send us feedback. We're always searching for ways to improve AlarmTraq. Send us your ideas, comments, suggestions and even rants!

If you think that your comment requires a reply, our technical support form might be more appropriate: Contact Our Support Team. Due to the urgent nature of some messages sent using the technical support form, we read all of them on a daily basis and reply promptly by email.

Note: All of the information you provide will be kept confidential.

For More Information, Please Visit Our Website! www.alarmtraq.com

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