The point of optimization is to reach a state, where you should react to every message (email, SMS) that you receive, make some corrective actions for source of the problem, so the message is not generated pointlessly. If there's a message, which you deliberately don't read, it means you don't need the message at all, and it's only increasing the risk that you miss some other important message.

Today there's a lot of tools to optimize and reduce the number of messages from Watches (and from other parts of CM too), **though as our experience has shown, they're not really used, even though they can provide significant transparency in status of technology.** We are aware that there's plenty of room to improve the tools of messages optimization, for example, you can expect prioritization of Watches.

Overview of notification types

the fundamental type of notification is **record about an error on CM Server**, which can be viewed through CM portal at *Presentation and Evaluation -> Warnings -> Errors* and select Watches (Online).

CM Server sends an <u>email</u> notification to assigned operators of the company or to the computer when FAIL state occurs, then every 24 hours when it lasts, at switching back to OK status, optionally if notification of Unknown state is enabled, then also all changes Unknown -> OK/FAIL, OK/FAIL -> Unknown.

C-Monitor sends <u>email and SMS messages</u> independently from CM server notifications using Actions of Watches (that's why it might happen that you receive two reports of one error one from CM server and the other one from C-Monitor action).

Activate notification by Actions, if you need to :

- remind of a Watch's FAIL state more than once every 24 hours

- send the message also to other operators, than the company's assigned operators and to the computer on which the Watch was created

- send a SMS message (CM Server doesn't iniciate sending of SMS messages, that's always C-Monitor's job)

Tools to reduce the amount of notification

Delay of switching a Watch to failed state Switching a Watch to Unknown status without notification Block notification of Watches' status from CM Server while keeping records of errors Block evaluation & notification of Watches' status from CM Server

Delay of switching a Watch to failed state

Delay of occurence of failed state is a frequently used setting of CM Watches. You define a time limit, during which FAIL state must persist, for the Watch to be evaluated as FAILED.

Delay for Fail state is used in many situations, when you don't want to be notified about a short-term FAILED status, such as :

1) You're testing availability of an ip address on network using the condition Ping every 5 seconds. If you miss one ping response, result of the condition is immediately set to False state and defaultly, the Watch would be switched to FAILED state. You'd then be notified about change of its state, even though this might be an "insignificant" failure.

Using Delay for Fail state set to e.g. 30 seconds will secure, that FAILED state of the Watch will only occur after 30 seconds since the first FAIL state of the condition, without a change.

2) You're testing load of CPU or Memory using the condition CPU usage or Memory usage.

If the limit value of the device's load, which you've set in the condition, is exceeded (e.g. < 95%), the condition is switched to False state. However, this load may be short-run, and therefore has no informative value. The merits of FAILED state begin after the FAIL state lasts for several seconds, or minutes. That's why you should use Delay for Fail state, which increases informative value of the Watch's status.

The procedure of setup through <u>C-Monitor console</u> [1] is as follows:

- 1) Open the tab Watches in the C-Monitor console menu
- 2) Double click the Watch that you want to edit
- 3) Tick the checkbox Delay for FAIL state and set the required time period

MonitorConsole	California States - Annalas - Blatter Matter States and	A	
C-Monitor Tools Help		Watches	
Settings	Ele Edit 🛃 🚴 🗣 🐉 🗙 😆 🗠 🗠 😳 🤤		
Scheduler	C:VCMonitor/CnRVw/atchesList.swl		
Watches 1	Name [Description] Short Name Conditions CPU TEMP W2 DK if all conditions are true		
	> Hw.Mon. CPU Core #0 < 65; Value to CM : min. change 5	2	
C-Monitor Runtime Information's	LL SI WALL		
Waiting Tasks	Modify Watch		
Running Tasks	Conditions		
Watches State	Name (Description)	Short Name	
Watches Durrent Log	CPU TEMP (S	W2	
C-Monitor Current Log			
🖸 Emails	V Enabled		
Emails from Tasks, Watches waiting for sending	🔹 🖗 🗙 🕸 🖓 🤣 🗸		
Received, processed Emails	Conditions		
Emails waiting for sending	1 Hw.Mon. CPU Core #0 < 65; Value to CM : min. change 5		
Emails - All (without waiting for sending)			
Sent Emails - C-Monitor System Messages			
Sent Emails - User and System tasks Result:			
Sent Emails - Responses to CM gueries			
Not Sent Emails - Disabled	State of watch is:		
Not Sent Emails - Failed	OK if all conditions are true FAIL - if at least one condition is false		
(THistory	If state of the watch changes to FAIL, do Start Actions (Add New Start Actio		
Executed Tasks	While state of the watch is FAIL, do Repeat Actions (Add New Repeat Action		
C-Monitor Execution, C-Monitor Log History	If state of the watch changes to OK, do End Actions (Add New End Action)		
Watches History	If state of the watch changes to OK, to End Actions (Bod New End Action)		
System Info	If state of the watch is UNKNOWN, notify this by options in actions		
Network Info	V Delay for FAIL state. Conditions for FAIL state must be met at least 10 🕀 Min 🔹 3		
Waiting Tasks History	V Desay for PAIL state. Conditions for PAIL state must be met at least 10 , min V		
Execution Fails	E valuate watch state with longer period than 30s (specified by C-Monitor license)		
Modules logs	Note: Watches are active from 5 min after the operating system start		
C-BackupPlus Logs	Edit with Wizard OK	Count	
C-Image Logs	Edrivin weard	Cancel	

Image: Obrázok: Delay for Fail state

Switching a Watch to Unknown status without notification

Unknown state of a Watch is a specific state, which signalizes that the Watch's status is "indefinite", resp. it cannot be evaluated either as OK or Failed.

The Watch's state can be set to Unknown by any condition, regardless the result of other conditions of the Watch.

For a better understanding will serve an example:

We want to set evaluation of a Watch to check usage of CPU and Memory on server during working hours, when a certain load should not be exceeded, i.e. the Watch should be in OK state the entire time. If the Watch reaches FAILED state, notifications are delivered to the operators.

However, there are maintenance processes running outside office hours, which load the devices to high performance values, so we can assume that the Watch will reach the FAILED state, though the operator doesn't need to be notified about it, as this state is not a relevant error.

Exactly for this purpose, to get the Watch to the described state where it won't be evaluated as OK, nor as FAILED, there's the Unknown status.

To define Unknown state, create a support condition. If you want to specify certain time interval, when the Watch should be in the Unknown state, the most suitable is the condition <u>Time Range</u> [2]. Notification of Unknown state is defaultly enabled for CM Watches, so this must be ticked out from the checkbox.

The described setup is shown on the following image, where in the steps 1 and 2 you can see that the condition Time Range was added to the Watch, which will cause that the Watch will be evaluated as Unknown outside 6:00 - 18:00. To disable notifications about the Unknown state, the checkbox in step 3 mustn't be ticked.



IT monitoring and management tool

С

Optimization of Watches notifications Published on Customer Monitor (https://customermonitor.eu)

New Watch			23	
Conditions				
Name (Description)		Short Nan	ne	
CPU and Memory usage W3				
V Enabled				
ቀ ♣ × ∞ 企 示 ✓				
Conditions				
CPU Usage System < 90%; Value to CM : min. change 10 Used Physical Memory Size < 90%; Value to CM : min. change 10				
3 Time in the range 6:00 - 18:00; W.S.Unknown if FALSE; Value to CM : Yes		-	_	
S This in the range c.co. T.c.co, W.c.chikhowith TACCE, Value to CHT. Tes	4	_		
	1			
State of watch is:				
OK if all conditions are true FAIL - if at least one condition is false				
If state of the watch changes to FAIL, do Start Actions (Add New Start Actio				
While state of the watch is FAIL, do Repeat Actions (Add New Repeat Action				
If state of the watch changes to OK, do End Actions (Add New End Action)				
If state of the watch is UNKNOWN, notify this by options in actions 3				
Delay for FAIL state. Conditions for FAIL state must be met at least 10 Min				
Evaluate watch state with longer period than 30s (specified by C-Monitor license)	_			
Condition Definition	×			
Available Functions TimeRange		L Ca	ancel	
Watch State Operator Time Range HH[:MM[:SS]] - HH[:MM[:SS]]		-		
Network Presented in				
Memory Usage				
Disk Activity Value from this condition send to CM server 2				
Disk Queue Length				
Network Adapter Usage				
Internet IP Traffic	_			
Internet IP Transferred Data				
Free Space On Disk status of watch will be Unknown				
Exists File				
File Size				
Files Size in Directory				
Exists Directory				
Directory Accessible				
LoggedOn User				
Windows Running Time				
Operating System started				
Date				
Day of Week				
Time				
TimeRange				
Current IP				
OK Ca	ancel			



Image: Obrázok: Unknown State

Another example for internet/network services is the availability check of a certain location, where there are tests running for individual services, and you don't want to be notified of errors of all the individual services in case the entire location fails. Availability of a location can be tested by an independent Watch and then the condition "Watch state" added for the particular tested services, which will change their status to Unknow, if state of the Watch is failed.

Block notification of Watches' status from CM Server while keeping records of errors

Blocking of notification of Watches' status from CM server while records of errors are still created is also used for monitoring via CM Watches, where the operator won't be notified of error states by notification messages, but it's necessary to keep, and to be able to browse the records.

This option is often used for Watches, which frequently change their status, and the operator would be unnecessarily burdened by the frequent notification.

For example, the operator is deployed to track an inferior internet line, where outages begin to occur frequently. The operator will disable notification through CM Portal, and the error states are monitored by Watches Online.

The blockage is set through CM Portal Admin zone -> Watches - Settings -> choose a concrete Watch and press "edit"

Subsequently, select the option BLOCKED notification on CM Server.

	Admin zona	ehliadanie a rhodnotenie Customer Desk			
Zbalit všeko 🔹 Rozbalit všeko	🗊 Watches - nastavenia				
 Hlavné menu 	Spoločnosť ce hub Po	čítač & Umiestnenie Používateľ Operátor Stednoduché			
Zákazníci	Názov Watchu	Len zapnuté Watches 🗌 Len online počítače Hľadať 🔍 Rozšírené			
Počítače	Ping to Finland IP 113 (RCHSV02)				
Audit SW a evidencia HW	General Conditions & Actions				
- Používatelia	Name (Description)	Ping to Finland IP 113			
Mõj profil	Short Name	W5			
Zákaznícke kontá	Enabled	N			
Používateľská história					
 Admin. nástroje 	Watch state	OK it all conditions are true FAIL if at least one condition is failse			
Inštalácie a skripty	Start Actions	If state of the watch changes to the FAIL, do Start Actions (Add action)			
C-Image nastavenie	Repeat Actions	While state of the watch stays FAL, do Repeat Actions (add action)			
Udržiavanie PC	End Actions	If state of the watch changes to the OK, do End Actions (Add action)			
 C-Monitor klient 	Card Processing	I CHIE OF THE THREE CHERTINES IN THE CAR, WE LINE PARTIES THE RECENT			
Nastavenia C-Monitora na PC	Notify Unknown State from C-Monitor by Watch actions	8			
Rozvihy a stav úloh	Notify Unknown State from CM				
Watches - nastavenia Aktualizácia C-Monitor kilenta	server				
Verzie	Delay for FAIL state				
Licencie					
Stiahnuté súbory z počítačov	Evaluation and notification of	For this watch: ALLOWED on CM server			
- Komunikácia	errors on CM server:	ALLOWED on OM server For computer: I BLOCKED notification on CM server			
Odoslané požiadavky z CM		For customer: BEDOKED evoluation and notification on CM server			
Prijaté správy do CM					
Vzdialený prístup		tions during editing of the watch are saved to the database. Watch configuration is updated only by			
Odoslané SMS a Emaily	sending the modified configurat	ion to the C-Monitor client.			

Image: Obrázok: Blokácia notifikácie stavu Watches z CM Servera a súčasne zachovať vytváranie záznamov o poruchách

Block evaluation & notification of Watches' status from CM Server.

Blocking of both evaluation & notification of Watches' status from CM Server is used in case you only

need to evaluate the Watch in C-Monitor through C-Monitor console. Therefore, it won't be possible to check results of such Watch through CM Portal at all.

The blockage is set through CM Portal Admin zone -> Watches - Settings -> choose a concrete Watch and press "edit".

Subsequently, select the option BLOCKED evaluation & notification on CM Server.

	Admin 2003	rehliadanie a Customer Desk yhodnotenie			
- Zbaliž všeko 🤍 Rozbaliž všeko	🕅 Watches - nast	avenia			
 Hlavné menu 	Spoločnosť ce hub Po	očítač & Umiestnenie Používateľ Operátor Hfadat 🖲 Jednoduché			
Zákazníci	Názov Watchu	Len zapnuté Watches Len online počítače			
Počítače	Ping to Finland IP 113 (RCHSV02)				
Audit SW a evidencia HW	General Conditions & Actions				
 Používatelia 	Name (Description)	Ping to Finland IP 113			
Mõj profil	Short Name	W5			
Zákaznícke kontá	Enabled	×			
Používateľská história					
 Admin. nástroje 	Watch state	OK if all conditions are true FAIL if at least one condition is false			
Inštalácie a skripty	Start Actions	If state of the watch changes to the FAIL, do Start Actions (add action)			
C-Image nastavenie					
Udržiavanie PC	Repeat Actions	While state of the watch stays FAIL, do Repeat Actions (http://www.			
- C-Monitor klient	End Actions	If state of the watch changes to the OK, do End Actions (Mit action)			
Nastavenia C-Monitora na PC	Notify Unknown State from C-Monitor by Watch actions				
Rozvrhy a stav úloh	Notify Unknown State from CM				
Watches - nastavenia Aktualizácia C-Monitor kienta	server				
Verzie	Delay for FAIL state				
Licencie					
Stiahnuté súbory z počítačov	Evaluation and notification of	For this watch: ALLOWED on CM server			
- Komunikácia	errors on CM server:	ALLOWED on CM server For computer: BLOCKED notification on CM server			
Odoslané požiadavky z CM		For customer: BLOCKED evaluation and notification on CM server			
Prijaté správy do CM					
Vzdialený prístup	IMPORTANT NOTE: No modifical	ations during editing of the watch are saved to the database. Watch configuration is updated only by			
Odoslané SMS a Emaily	sending the modified configurat	tion to the C-Monitor client.			

Image: Obrázok: Blokácia vyhodnocovania & notifikácie stavu Watches z CM Servera Date: 03/03/2012Images:



Links

[1] https://customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/introduction-setting-online-monitoring-watches/basic-watch

[2] https://customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/introduction-setting-online-monitoring-watches/overview#Time range

[3] https://customermonitor.eu/sites/default/files/Delay%20for%20fail%20state.png

[4] https://customermonitor.eu/sites/default/files/Unknown%20state_2.png

[5] https://customermonitor.eu/sites/default/files/Blokacia_konkretneho_watchu_2_0.png



[6] https://customermonitor.eu/sites/default/files/Blokacia_konkretneho_watchu_3.png