Notifications of overloads of servers, computers and the course of their load with up to two-month history can be acquired from Watches. In this article, we'll advise you how to configure monitoring with notification from usage of CPU, RAM and load of disks.

Recommendation : If you haven't worked with C-Monitor console yet, then read the <u>Introduction to</u> <u>setup of Watches, conditions, actions</u> [1]

Skip to Example of setup of overload monitoring through CM portal (for all OS types) Skip to View of the current state and history of overloads on CM portal

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Example of setup of overload monitoring through C-Monitor Console on Windows

| Create a watch to check Server ove | erload. Select Memory usage as the | e first condition. |
|---|---|---|
| G Watch Wizard | | |
| Add condition for " | Preťaženie servera" | |
| Performance Memory usage CPU usage Disk usage Disk read / write queue length Network adapter usage Process usage (memory, CPU) Performance counters Transfered speed in LAN, Harddrives | Health of systems EventLog Events Count (for Windows Vista and newer) Free space on disk. Service status Loaded Device Driver Running process E-Mail looping test (SMTP -> POP3) Ping RTT (response time) Ping packet loss | Security Running user process Unauthorized admin process LoggedOn user Time limitations Date Day of Week Time Time Range |
| Transfered speed of FTP Internet IP trafic (transfer speed) Internet IP transfered data Preddefined performance templates Check accessibility Ping SMTP POP3 HTTP, HTTPS Exists file Exists directory Accessible directory Current IP Network presented (active any network adapter) | File size File size in directory Windows running time Hardware Monitoring HW monitoring of server (HP, DELL, FUJITSU) LINUX monitoring Environment Monitoring (snmp) Environment Monitoring (http) Preddefined health templates | Custom conditions SNMP CHAT CHAT Variable CHAT Numeric Variable CHAT Vector Variable Use state of another Watch Watch state |
| < Back Next > | | Cancel |

Image: Pridanie memory usage

in Memory type, choose Total memory usage, set the operator to < and the value to 99%. The high value is selected, as we expect that in a normal state, the usage of RAM shouldn't be high. Set the



value of change (If value changes more than) to e.g. 2-5%. Each value that reaches a change by the selected number of percent is sent to the CM server. As the server should not be unnecessarily loaded, it's appropriate to choose a higher number, but in a way, that the view on CM portal shows relevant changes of the monitored parameter.

Memory usage

| Memory Type Used Total Memory Size | • |
|--|----------|
| Operator Memory Size | Unit 👻 |
| Value from this condition If value changes more that Always Never | |
| Assess the state of watch | |

Image: Parametre pre Memory usage

Click on Next and then on Add condition, where you select CPU usage. In the next window set the operator to < and the value to 99%. The high value is selected, as we expect that in a normal state, the usage of CPU shouldn't be high. Set the value of change (If value changes more than) to e.g. 2%. Each value that reaches a change by the selected number of percent is sent to the CM server. As the server should not be unnecessarily loaded, it's appropriate to choose a higher number, but in a way, that the view on CM portal shows relevant changes of the monitored parameter.

CPU Usage

| CPU Usage System 🗸 | Operator < ▼ | Usage in % 99 | |
|--|-----------------|------------------|--|
| • Value from this con • If value changes mo • Always | | to CM server | |
| Never Assess the state of water | atch | | |



Image: Parametre pre CPU usage

Press Next and add the condition Disk Usage. In the next window set the operator to < and the value to 95%. The high value is selected, as we expect that in a normal state, the disk usage shouldn't be high. Set the value of change to e.g. 5%. Each value that reaches a change by the selected number of percent is sent to the CM server. As the server should not be unnecessarily loaded, it's appropriate to choose a higher number, but in a way, that the view on CM portal shows relevant changes of the monitored parameter.

Disk Usage

| Operator Usage in % ▼ 95 | |
|--|---|
| • Value from this condition se • If value changes more than | 5 |
| Always Never | |
| 🔲 Assess the state of watch | |

Image: Parametre pre Disk usage

After the conditions are entered, it's advisable to tick Delay for False. The Delay for sending notifications is set, so that not every bigger load of the server is notified as a False state. It's likely, that the server sometimes uses maximum of the hardware resources, e.g. when working with a huge amount of files, at execution of certain programs etc. However, this state should not last too long. Set the length of the delay for sending notifications in respect to the running processes, as well as usage of the server itself.

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| 100 | | | | |
|-----|-------|-----|-------|-----|
| 100 | 1.8.4 | - L | 1.8.1 | |
| | Wa | tch | VV 17 | 300 |
| | | | | |
| | | | | |

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| C | onditions for "Preťaženie servera" |
|-------------|--|
| 1 | Used Total Memory Size < 99% Check on each watch state evaluation Value will be sent to CM Server only if change to last sent value is more than 2 |
| 2 | CPU Usage System < 99% Check on each watch state evaluation Value will be sent to CM Server only if change to last sent value is more than 2 |
| 3 | Disk Usage < 95% Check on each watch state evaluation Value will be sent to CM Server only if change to last sent value is more than 5 |
| | Add Condition Delete Condition |
| ate (| of watch is OK if all conditions are true FAIL · if at least one condition is false |
| ⊘ De | elay for FAIL state. Conditions for FAIL state must be met at least |
| Sho | ow Advanced Options |
| | |
| | |
| | Watches are active from 5 min after the operating system start |
| < B | Back Next > Skip Actions >> Cancel |

Image: Podmienky watchu preťaženia servera

After pressing Finish, the watch's configuration is complete. If you select the watch as Enabled, you'll be able to view its status directly in the PC's C-Monitor console, in the top left menu watches state.

Example of setup of overload monitoring through CM portal (for all OS types)

A watch can be created even without direct access to the PC, by adding it though CM portal. After login to CM portal, open Admin zone and in the left menu Watches - Settings. Enter parameters of the required computer into the upper filter. After finding it, you'll see the PC/server along with its already existing watches, if there are any. After clicking on Display watches, you'll get to the option



Signalization of overload via Watches

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| | 1 Admin zóna) Prehlizdanie a Customer Desk | Operato | C. Pevol |
|---|---|--------------------------|---|
| Ztaliť vlatko – Rosbaliť vlatko | 🕲 Watches - nastavenia | | |
| - Hlavné menu | Spoločnosť sval Počíslá š Umiestnenie (330 Poslivateľ Operátor Hifadar Biodockaté Skov Vastna Exa posle pošítke | | Enevious Watches |
| Zákaznici Počítače | Nizov Watchu C Len zaprusk Watches Len onlize politade O Rozlivová | | |
| Audit SW a evidencia HW | | Add wate | hes via SWL lile on selected PCs |
| Použivatelia Máj profil | X CM-ID Meso-vsieti Umiestnenie PouDvateť Spoločeosť Watches Akn na | | Post. online spojenie s 3 CM |
| Zákaznicke kontá Používatetská história | SCHEDIZ HERSINE prenamy BA Paral SCAL IT Services. 11/2. A | 10. Apr 2012 10:00:04 | 10. Apr 2012 10.37/18 Display webbes SWL Nietory |
| Admin. nàstroje | < 1/1 💌 > 20 💌 Zabrazujem polsky 1 - 1 z celizového počku 1 polskiek | | |
| Inŝtalácie a skripty | | | |
| C-Image nastavenie Udztavanie PC | | | |
| | | | |
| C-Monitor klient | | | |
| Nastavenia C-Monitora na PC | | | |
| Rozvity a stav üleh Watches - nastavenia | 2 | | |
| Aktualizácia C-Monitor klienta | | | |
| Verble | | | |
| Licencie | | | |
| Statnuté súbory z počítačov | | | |

Image: Pridanie watchu cez CM portál

Click on Add watch to start creating a new watch

| Spoločnosť seal Počítač & Umiestnenie 5930 Používateť Operátor Hľadať I Jednoduché Prevtoz Vkáchu Len zapruté Watches Len online počítača Len online počítača Prevtoz Watches Prevtoz Zoznam watches odosielaných z počítača SEANB02 / HP6930P / Pavol / prenosny BA pridanie watchu Add watch Loc Watch name State Conditions Min. change value Diate Start / Repeat / End actions | Watche | s - nastavenia | | | | | | | |
|---|--------------|-------------------------------|--------------------------------|-----------|--------|--------|----------|------------------------------|---------------------|
| Watch name State Conditions Min. Delay for Start / Repeat / End actions change FAILED | | | | Operator | Hfadat | | | | Previous Watches |
| change FAILED | Zoznam watch | es odosielaných z počítača SE | ANB02 / HP6930P / Pavol / prer | iosny BA | | | pridanie | watchu 🗕 📥 🕬 | vetch Back |
| | Watch | name State | c | onditions | | change | FAILED | Start / Repeat / End actions | |

Image: Pridanie Watchu

Name the watch e.g. Server Overload in the popped-up window. It's advisable to tick Delay for False. The Delay for sending notifications is set, so that not every bigger load of the server is notified as a False state. It's likely, that the server sometimes uses maximum of the hardware resources, e.g. when working with a huge amount of files, at execution of certain programs etc. However, this state should not last too long. Set the length of the delay for sending notifications in respect to the running processes, as well as usage of the server itself. Then press Continue.

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| G New watch | _ 🗆 🙁 |
|---|---|
| Name (Description) Short Name Enabled | Pret'aženia servera 1 W1 |
| Watch state | OK if all conditions are true FAIL if at least one condition is false |
| Notify Unknown State from C-Monitor by Watch actions | |
| Notify Unknown State from CM server | Notification can be enabled after updating watch on the computer |
| Delay for FAIL state | Conditions must be met at least 10 min 🖃 |
| Evaluation and notification of errors on CM server: | For this watch: ALLOWED on CM server Notification is enabled For computer: ALLOWED (Change in computer settings) |
| | For customer: ALLOWED (Change in customer settings) |
| | tions during editing of the watch are saved to the database. Watch configuration is updated infiguration to the C-Monitor client. |
| | |
| | 3 💾 Continue 🛞 Close |

Image: Pomenovanie watchu, nastavenie

The tab Condition & Actions will open, and by pressing Add condition, you'll add the first condition for monitoring of RAM usage, i.e. select Memory usage from the list. In Memory type, select Used Total memory size, set the operator to < and the value of Memory size to 99%. The high value is selected, as we expect that in a normal state, the usage of RAM shouldn't be high. Set the value of change (If value changes more than) to e.g. 2%. Each value that reaches a change by the selected number of percent is sent to the CM server. As the server should not be unnecessarily loaded, it's appropriate to choose a higher number, but in a way, that the view on CM portal shows relevant changes of the monitored parameter. Then press Apply.



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| | Admin zóna Prehliadanie Vyhodnoteni | | | Operaîtor: Povol Pasikerrič |
|---|--|--|---|-----------------------------|
| Zbaliť vleko Rosbaliť vleko | 🕲 Watches - nastavenia | | | |
| Hiavné menu | Spokolnosť urol Polital & Unie | staenie 900 Postivatet | Operátor | Previous |
| Zákazníci | Názov Watchu 🗌 Len papra | té Watches 📋 Len online politai | | Watches |
| Politače | + Preťaženia servera (SEANB02) | Bová podmienka pre watch | _ 🗆 0 | 🗶 Delete 😂 Update Eack |
| Audit SIV a evidencia HW | General Conditions & Actions | Filter. | Memory Usage | |
| - Použivatella | List of conditions | CHAT | liemon Type 3 | |
| Mőj profil | Description | CHAT Numeric Variable CHAT Variable | Used Total Nemory Size | |
| Zákaznícke kontá | Add condition | CHAT Vector Variable CPU Usage | Coperator Memory Size Unit | |
| Používateľská hlatórta | 1 | Current IP Date | Value from this condition send to CM server | |
| Admin. nästroje | List of Actions | Day of Week Directory Accessible Disk Gueue Length | If value changes more than 2 | |
| trátatácie a skripty | Type Description | Disk Usage E-Hai Loop Test | O Always 5 | Delay |
| C-Image nastavenie | Add action | Environment Monitoring (http) Environment Monitoring (anmp) | © Never | |
| Udd5avanie PC | Podmienka alebo akcia bola upravovaná p | EventLog Events Count Exists Directory | | |
| - C-Monitor klient | | File Size | | |
| Nastavenia C-Monitora na PC | MPORTANT NOTE: No modifications during | Flee Space in Directory Free Space On Dak | | |
| Rozirhy a stavilloh | configuration is updated only by sending the | Hardware Monitoring | | |
| Watches - nastavenia | | Internet IP Transferred Data Loaded Device Driver | | |
| Aktualizácia C-Monitor klienta Vette | | LoggedOn User | 2 | |
| Licencie | | Network Adapter Usage Network Presented | | |
| Stiahnuté súbory z počítačov | | Operating System started POP3 | 6~ | |
| - Komunikácia | | Performance Counter + | • | |
| Odosłané poliodawły z CM | | | 🖬 Apikovat 🧕 Ö Zaviet | |

Image: Nastavenie podmienky pre sledovanie RAM

By another clicking on add condition, we'll similarily add a condition for usage of CPU. Select CPU usage from the list. In the next window, set the operator to < and the value to 95%. The high value is selected, as we expect that in a normal state, the usage of CPU shouldn't be high. Set the value of change (If value changes more than) to e.g. 5%. Each value that reaches a change by the selected number of percent is sent to the CM server. As the server should not be unnecessarily loaded, it's appropriate to choose a higher number, but in a way, that the view on CM portal shows relevant changes of the monitored parameter. Press Apply when the parameters are entered.

| 🔶 Preťaženia servera (SEANB02) | | | 🗙 Delete 📚 Update Back |
|---|--|---|------------------------|
| General Conditions & Actions | Nová podmienka pre watch | _ 🗆 0 | |
| List of conditions | Filter: | CPU Usage | |
| Description * Used Total Memory Size > 89%. Value to CNL min. ohe Add condition List of Accions Type Description Add action | CHAT CHAT Numeric Variable CHAT Variable CHAT Variable CHAT Vector Variable Councer Variable Date Date Date Date Date Date Date Dat | CPU Usage Operator Usage in % System Value from this condition send to CIII server If value changes more than 5 % Always Never | Edit Delay |
| Podmienka alebo akcia bola upravovan IMPORTANT NOTE: No modifications du configuration is updated only by sending t | ring editing of the watch are sav | | |

Image: Nastavenie podmienky pre sledovanie CPU

Finally add a condition for load of disks. Add the condition Disk Usage. In the next window, set the operator to < and the value to 95%. The high value is selected, as we expect that in a normal state, the usage of RAM shouldn't be high. Set the value of change to e.g. 5%. Each value that reaches a change by the selected number of percent is sent to the CM server. As the server should not be unnecessarily loaded, it's appropriate to choose a higher number, but in a way, that the view on CM portal shows relevant changes of the monitored parameter. Press Apply when the parameters are entered.



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| O Nová podmienka pre watch | | _ 🗆 😣 |
|--|--|---------|
| Filter: | Disk Usage | |
| CHAT CHAT Numeric Variable CHAT Variable CHAT Vector Variable CPU Usage Current IP Date Day of Week Directory Accessible Disk Queue Length Disk Usage E-Mail Loop Test Environment Monitoring (http) Environment Monitoring (snmp) EventLog Events Count Exists Directory Exists File File Size Elen Size in Directory | Operator Usage in % Solution Send to CM server Output of the server for the ser | |
| | 💾 Aplikovat' 🛛 🔇 | Zavrieť |

Image: Nastavenie podmienky pre sledovanie diskov

When the conditions are entered, click on Update. After this step, you'll see two warning windows. In the first one, confirm sending of the watch to the PC/server.

| 🕲 Watches - nastavenia | | | |
|--|--|------------------------------------|-------------------|
| Spoločnosť sesl Počitač & Umiestnenie G Názov Watchu Len zapnutě Watches | | Hfeder 🖉 Jednoduché 🔆 Rozšírené | |
| Preťaženia servera (SEANB02) | | | 🗙 Delete 📚 Update |
| General Conditions & Actions | | | |
| List of conditions | Are you sure to update changes on C-Monitor? | | |
| Description | | | |
| " Used Total Memory Size > 55%; Value to Cilit: min. change 2 | | | Edit Delete |
| CPU Usage System < 65%: Value to CM: min. change 5 Disk Usage < 95%: Value to CM: min. change 5 | OK Zrušiť | | Edit Delete |
| Add condition | | | List Lister |

Image: Upozornenie o update watchu

The second window contains a warning, that you shouldn't edit the watch until it's received on the PC/server

| Pretazenia servera (| SEANB02) | 🗙 Delete 😂 Update Back |
|--|--|------------------------|
| General Conditions & A | Request to update watch has been sent to C-Monitor. | |
| List of conditions | Watch will be updated in few minutes, please do NOT edit watch until your changes will be applied on the computer. | |
| Description | Continue with redirecting to the list of watches. | |
| * Used Total Memory Size > 99%; Val | | Edit Delate |
| * CPU Usage System 4 95%; Value 1 | | Edit Delete |
| * Disk Usage < 95%; Value to CM: m | OK | Edit Delete |
| Add condition | | |

Image: Upozornenie 2

View of the current state and history of overloads on CM portal

The online status, as well as history can be viewed on CM portal at Presentation and Evaluation -> Watches (online monitoring), search either the computer or the specific Watch through the upper filter



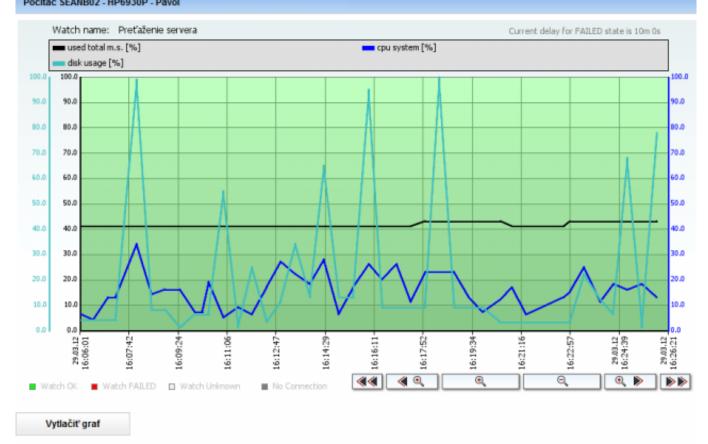
Signalization of overload via Watches

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| | Admi | | rehliadanie a Gustomer | Desk | | | | | Operator: Pevol | C |
|---|----------------------------------|--------------------|--|--------------------------|--|--------------------------|---------------------------------|-------------|-------------------------------|--------|
| alit vleko – Rozbalit vleko | 1 N | Vatches (Onlin | ne monitoring) | | | | | | | |
| Upozomenia Poruchy História porúch Poruchy na počítačoch | Spoločno Meno Wat Operátor | | Poditad 6 Umiestnenie Current status Zotoracif Pod sebou | Zoradiť ako | CH-D Conadif Watche Vootupne Conadif Watche Use Cunknown Vypnuté wat | na alko Vao | store 💌 🔣 | ladat | | |
| Zobrarenia | Zcenam | walchen [zobrazená | 1 položka] | | | | | | leport z porúch Walches | |
| Zéry Watches (Online menitoring) | Stav | Mena | Hodnota | Poslednà zmena stavu | Podmienky k určeniu stavu | <u>CM-ID</u> počitača | <u>Meno počitača v</u> sieti | Umiestnenie | Post. celine spojenie s CM | |
| Počítače Online informácie Internet bandwidth monitor Zmeny na počítači Foto dokumentácia | • | Postaženie servere | Used Total M.S. 44 %c2 CPU System 16%a2 Date Usage 9%c5 | 29. Mar 2012 16.05.57 | DK - because all conditions are true TRUE - Nervory Usage "Usad TRUE - CPU Usage "Usad TRUE - CPU Usage "System" (MN) < 60% TRUE - CPU Usage "Cystem" (MN) < 60% Deav for FALED state is 10m 0s | SEANDE2 | HPE938P | prenasny BA | 29. Mar 2812 16:09:27 | Liller |

Image: Stav Watchu

After clicking on the watch's name, you'll see its history Počitač SEANB02 - HP6930P - Pavol



Hodnota Minimum Maximum Priemer CPU System 4 34 15.780 Disk Usage 100 22.366 1 43 Used Total M.S. 41 41.683

Image: História zaťaženia servera Date: 02/05/2012Images:





Links

[1] https://customermonitor.eu/how-cm-works-0/monitoring-and-diagnostics/introduction-setuponline-monitoring-watches

- [2] https://customermonitor.eu/sites/default/files/1_4.png
- [3] https://customermonitor.eu/sites/default/files/2_3.png
- [4] https://customermonitor.eu/sites/default/files/3_1.png
- [5] https://customermonitor.eu/sites/default/files/4_1.png
- [6] https://customermonitor.eu/sites/default/files/5_2.png
- [7] https://customermonitor.eu/sites/default/files/6_1.png
- [8] https://customermonitor.eu/sites/default/files/7_1.png
- [9] https://customermonitor.eu/sites/default/files/8_1.png [10] https://customermonitor.eu/sites/default/files/9_1.png
- [11] https://customermonitor.eu/sites/default/files/15.png
- [12] https://customermonitor.eu/sites/default/files/10_1.png
- [13] https://customermonitor.eu/sites/default/files/11_1.png
- [14] https://customermonitor.eu/sites/default/files/12 1.png
- [15] https://customermonitor.eu/sites/default/files/13_1.png
- [16] https://customermonitor.eu/sites/default/files/14_1.png