AimBetter Group

Picture-Perfect SQL Server

Performance **C**ontrol **M**onitoring

Your New Interface

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Introduction

We designed it, especially for you!

As a leading company that develops technological solutions for the business market and specializes in remote performance management, we always strive to improve and deepen the knowledge for the added value to our customers and especially our end users, managers, and staff inthe IT departments. As an Aimbetter user, you have tremendous knowledge power!

Therefore - proudly introducing the AimBetter 2021

AimBetter is a smart system that learns from the daily challenges of our customers, from the smallest problems to the critical ones that can disable an entire business.

We function as your co-pilot!

Discover the unique identification capabilities of the Aimbetter PCM routinely and in an emergency and take control into your own hands.

Now, we are even more excited!

We are launching the new version of AimBetter with a completely new user interface, which combines a unique and easy-to-use dashboard designed especially for you!

Aimbetter PCM solution comes with new capabilities, parameters, and alerts that you will really want to get in real-time. That's not all; the new system incorporates plugins that will allow you to constantly monitor the external services and facilities that your business depends on.

AimBetter operates in any Microsoft environment, provides a solution for both on-premise servers (anywhere within the domain), and hosted cloud-based servers such as Azure DB, as well as hybrid combinations.

✓ Quick and straightforward installation.

✓ Easy version updates.

✓ Identification of performance issues quickly and easily.

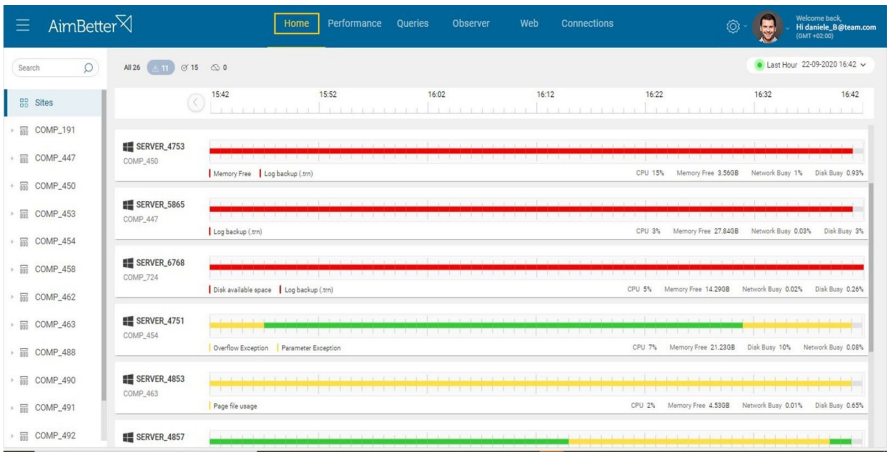
✓ Network Operation Center at your service

See all screens details and features in the illustrations and text below.

Home Screen

This is the first screen seen when logging in to the system.
On this page, you see an overview of your system status and health over the past 60 minutes, with all alerts requiring attention highlighted.

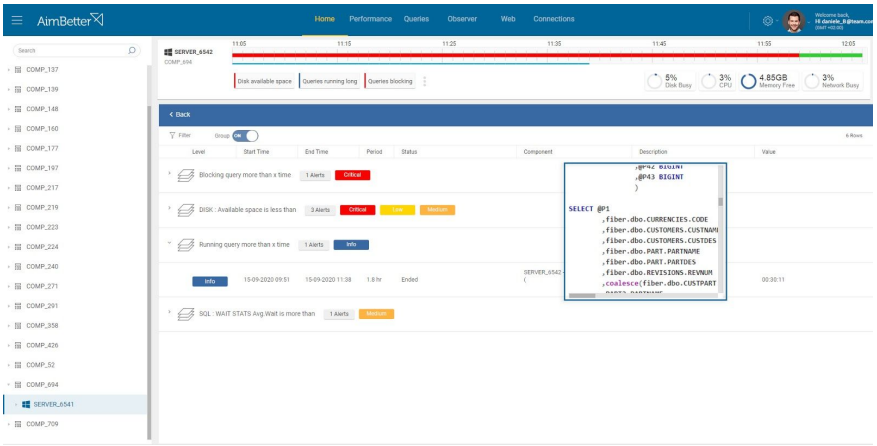
Here is an overview of the main page :



1. Menu button:

This button, in the position shown above, displays a fixed list of servers and instances under your control.

When clicked, it will change to the following position:



This retracts the list of servers so only when you hover on the list, it will expand as shown in the screenshot below:

2. AimBetter Logo.

In all cases after navigating away from the Home page, clicking on the AimBetter logo at the top of the dashboard will return you to the main page.

3. Settings button

Using this button, you can set your own rules for notifications and exclusions.

4. User information button

Clicking this button will give you the option to log off from the application, as well as to view your user settings, where you are able to reset your password, and change your personal information.

5. Sites column.

A list of all companies, servers and database instances under your management is shown. In the list above you can see that the top of the list represents the company name and all servers and instances are shown in the hierarchy below it.

6. Reload button

This button is useful when we want to refresh and reload the data that we see on the dashboard. For example, if a few seconds ago you performed a shrink on the database, you can now see the updated result on the log growth graph on DB tab. Furthermore, this is useful when there's a monitoring problem that was fixed at this moment and you would like to see that the data is being collected again.

7. Clock button

This button allows you to specify a range of start and end times on some tabs - for example it may be the analyze tab range of events date/time, or a similar option on query history on queries. For all graphs possible, you can have a range of day, month, week.

8. Arrow button

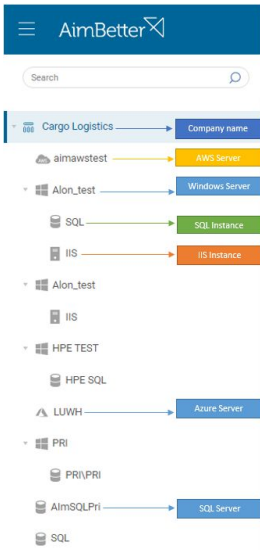
This button allows you to re-order values in a column which has a numeric value. You have the option to order the value by ascending or descending numbers. As well, in order to get to the range of time editing, we need to click on this button.

9. Colum Bank button

AimBetter displays default columns for each tab in the dashboard, but you also have the choice to add further data by adding more columns to the tab, choosing from the extended list of metrics relevant to this tab.

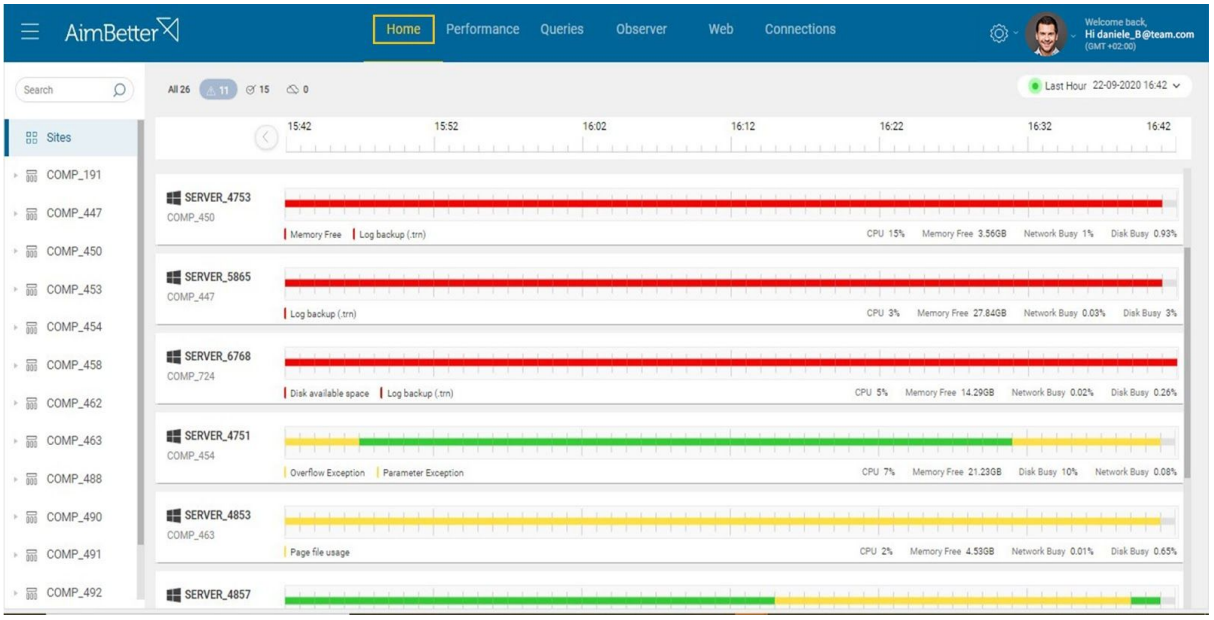
For example, on the DB tab you can add columns about the data and log drives, compatibility level, last dbcc check,unused data space, and more - those are not shown by

10. Sites: Types of servers icons



11. **Main view window:**

This shows the state of the monitored servers and instances over the past 60 minutes:



There are 5 colours that represent different severity levels.

- **Green - this means that there are no issues pending.**
- **Yellow - there is a low severity alert.**
- **Orange - medium severity alert.**
- **Red - critical severity alert.**
- **Blue - informative alert.**

*From the area on the top left of the main screen, you can filter between alert levels, by clicking on the icons in the top block.
You can see that there are 26 servers in total.

I. 11 are showing different alerts

II. There are 15 servers with no issues.

III. 0 servers are not synchronized.

Note that each level in the hierarchy list is also clickable and will show the information relevant to it.

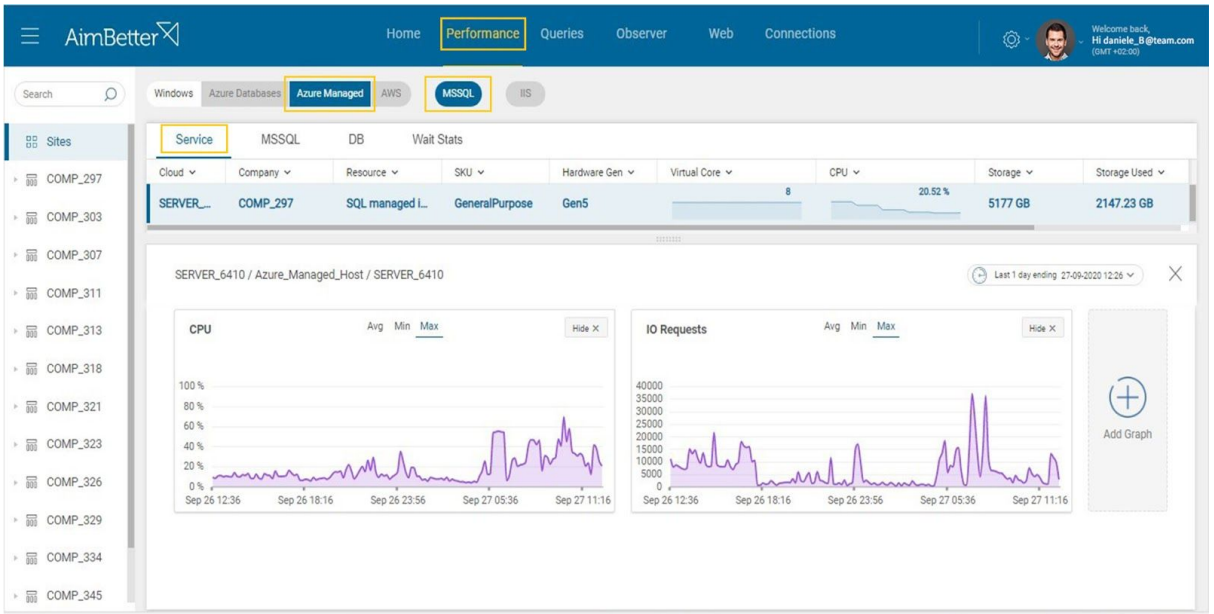
Performance Screen

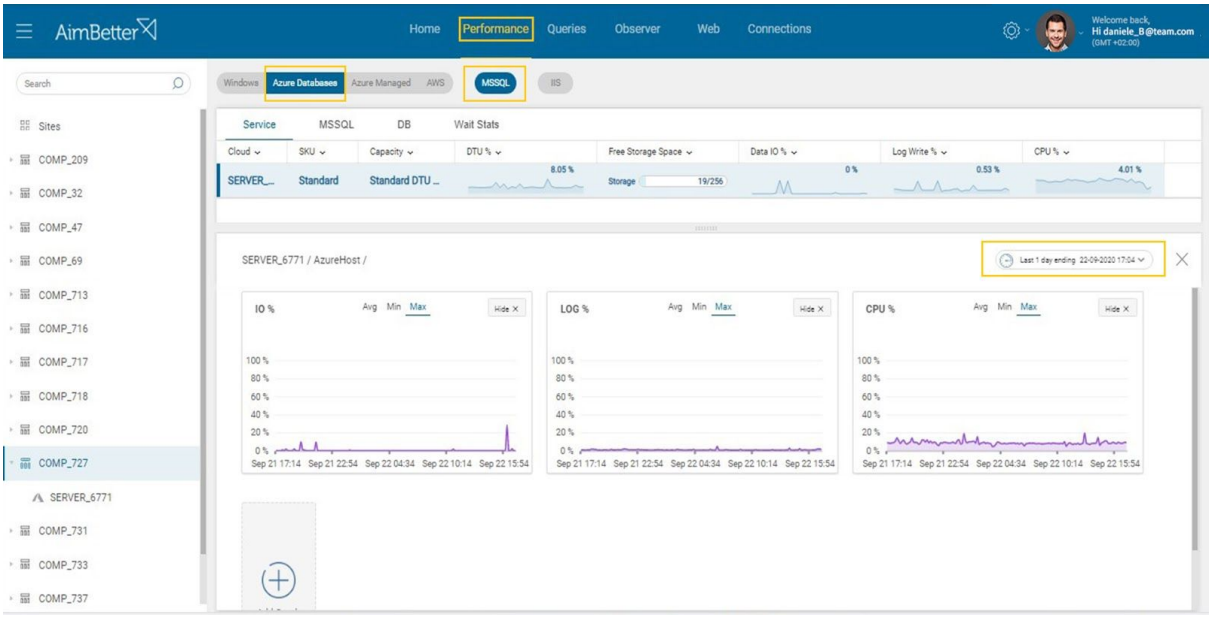
This tab shows the different aspects of the monitored servers and instances and is divided into sections that represent different resources on your systems:

1. Quick navigation bar.

Using this bar, you are able to quickly filter the view to show only the desired servers.

For example, if “azure managed” is available, pressing it will show on the screen only the azure managed servers inside the hierarchy.



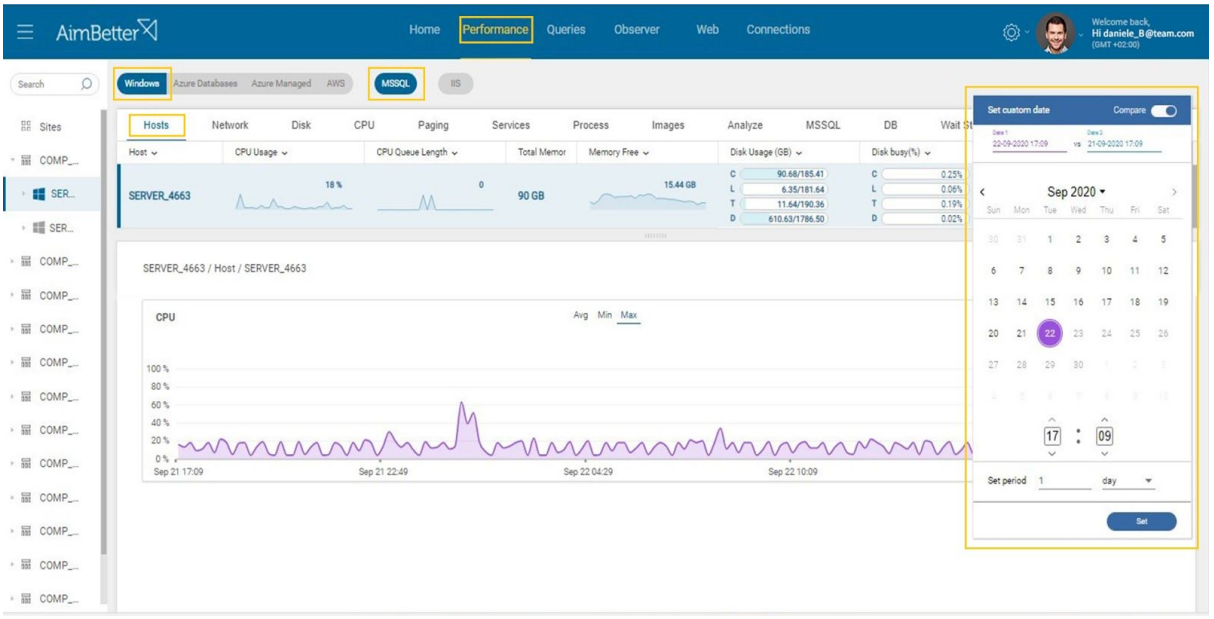


In all the individual tabs, by clicking the icon in the upper right corner of the top bar, you can choose from additional metrics to add to the dashboard: In addition to that, pressing on the individual graph icons will expand the graph in order to show the information you need.

2. Hosts tab

This tab shows information such as CPU usage percentage, total server memory, how much free memory remains, last restart of the server.

Example of expanded graph with optional metrics :



For example, pressing on the CPU Usage graph.

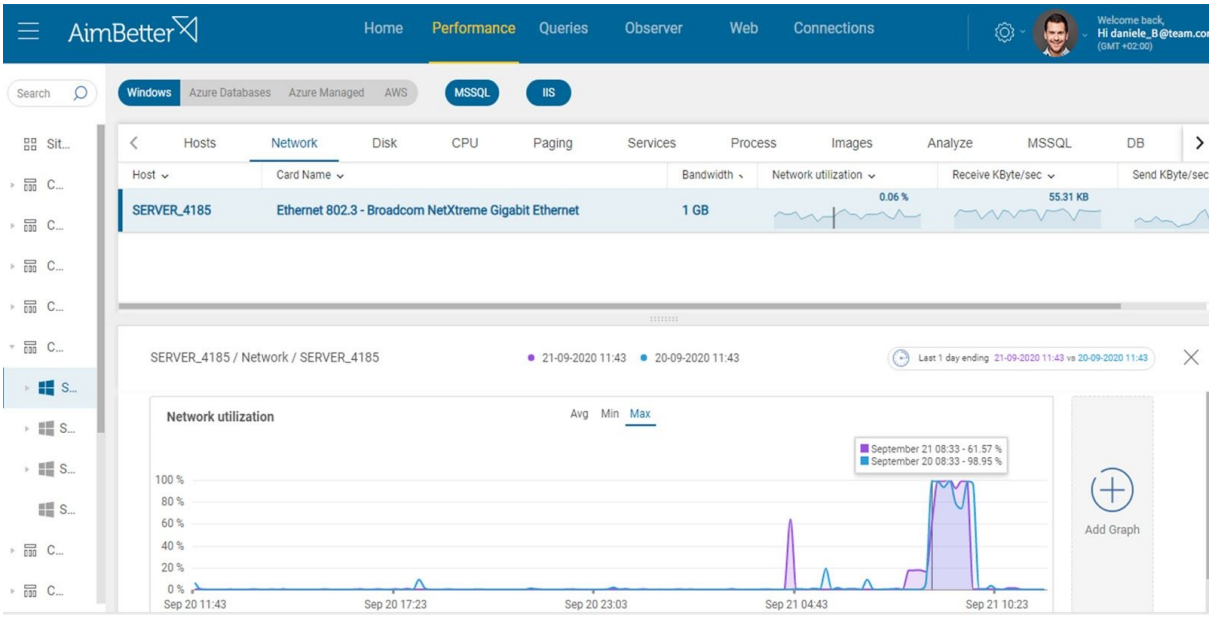
Here you can see information on how much free memory the server has and its changes over the past 24 hours.

You can choose to see the Average, Minimum or Maximum values.

Clicking on the time bar will allow you to change the time-span and even compare two different points in time, up to a month before (dependant on your specific client contract):

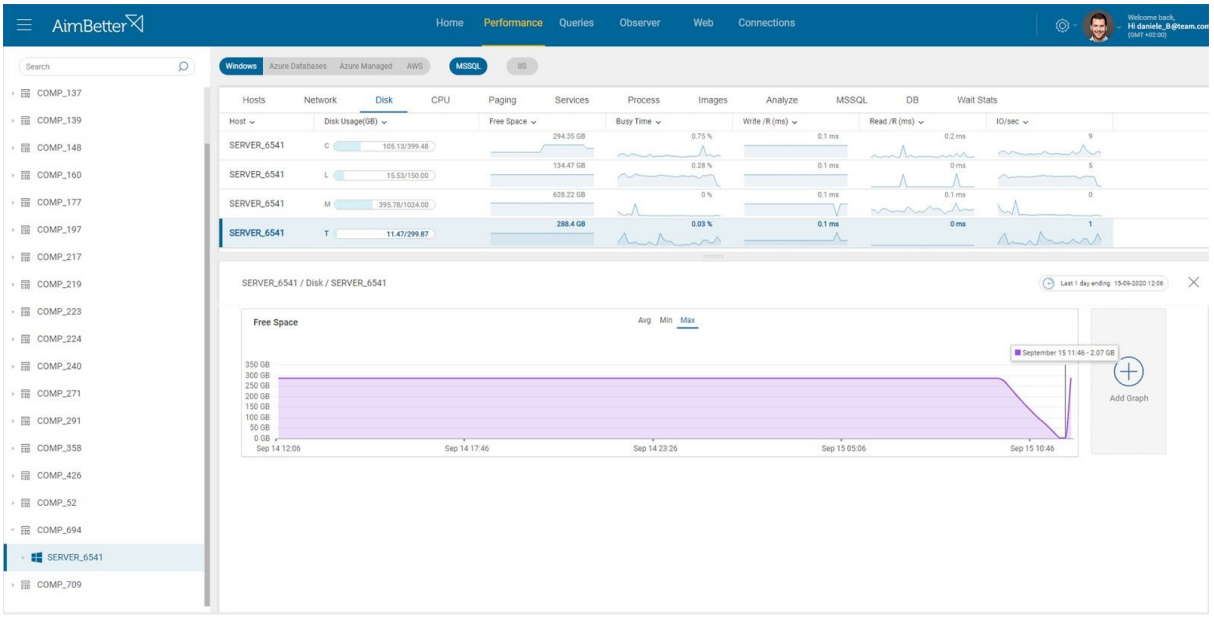
3. Network tab

This tab shows the server's network information, such as the network card details and bandwidth, and network traffic levels.



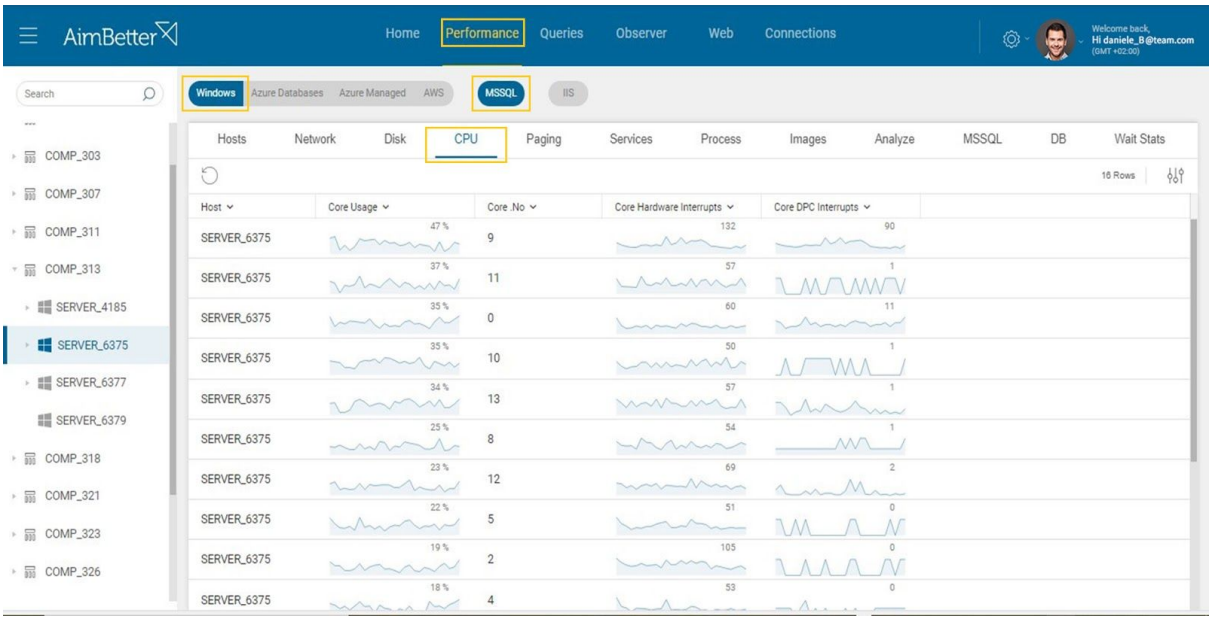
4. Disk tab

This tab shows the information about storage disks:- host name, used space and total space, free space, how busy they are at any given time, read/write and IO levels.



5. CPU tab

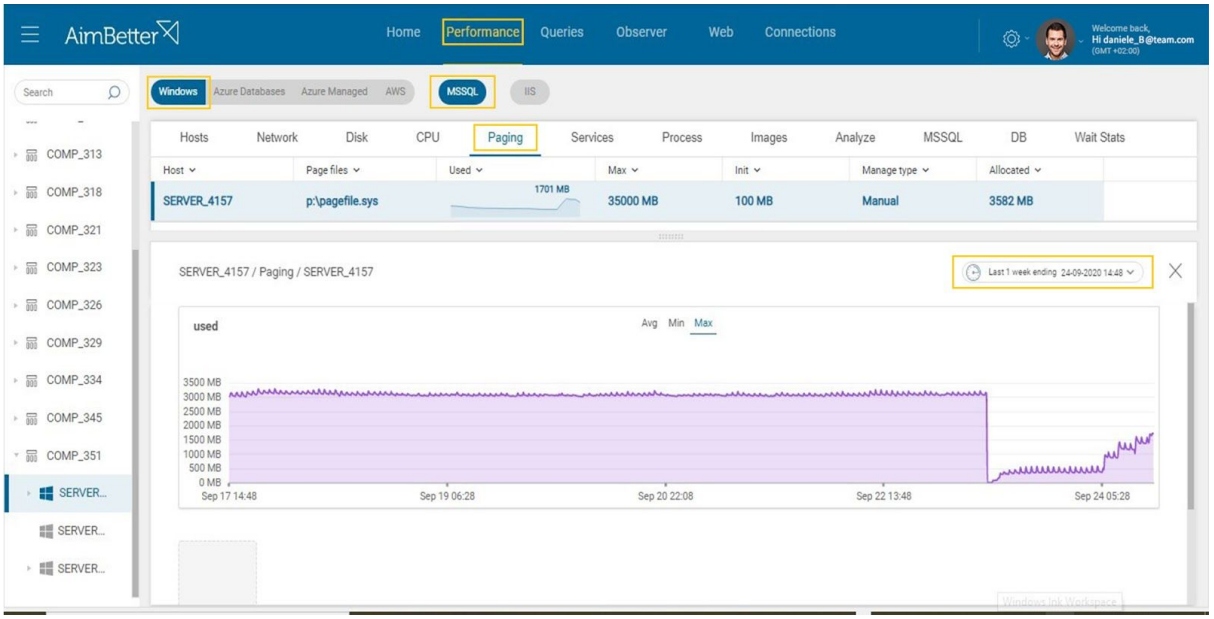
This tab shows the level of CPU core usage and number of cores.



*On this picture you see the CPU usage by descending values, the core number on the operation system, and the hardware or DCP interrupts.

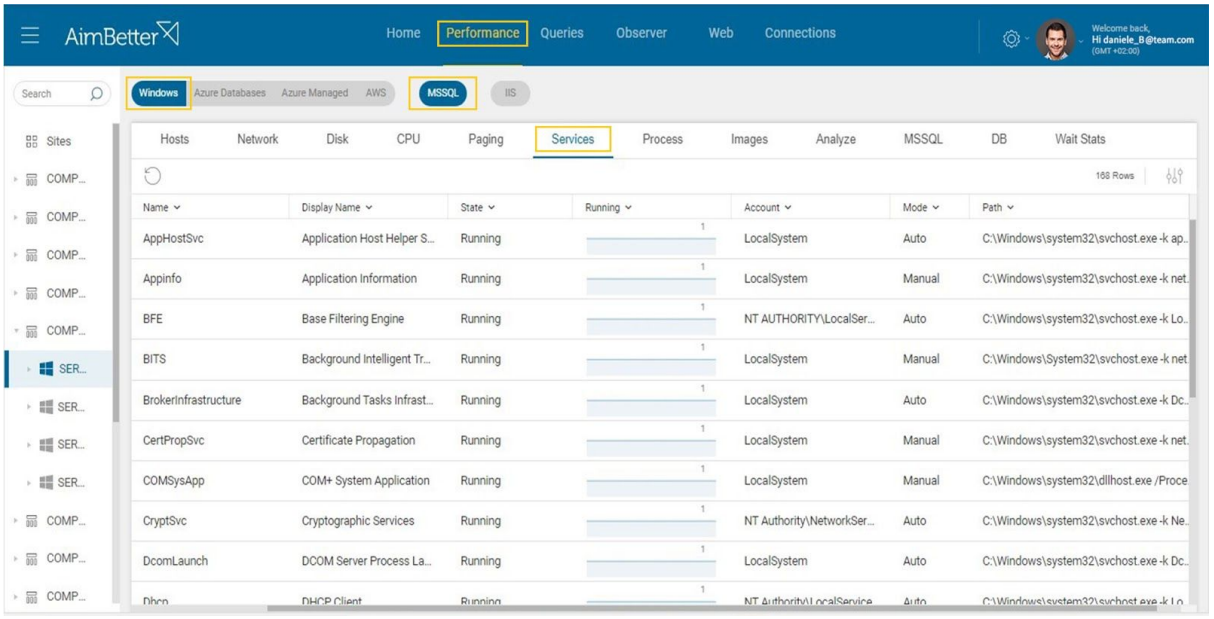
6. Paging tab

This tab shows page file information, including physical location, how much is used, size allocated etc.



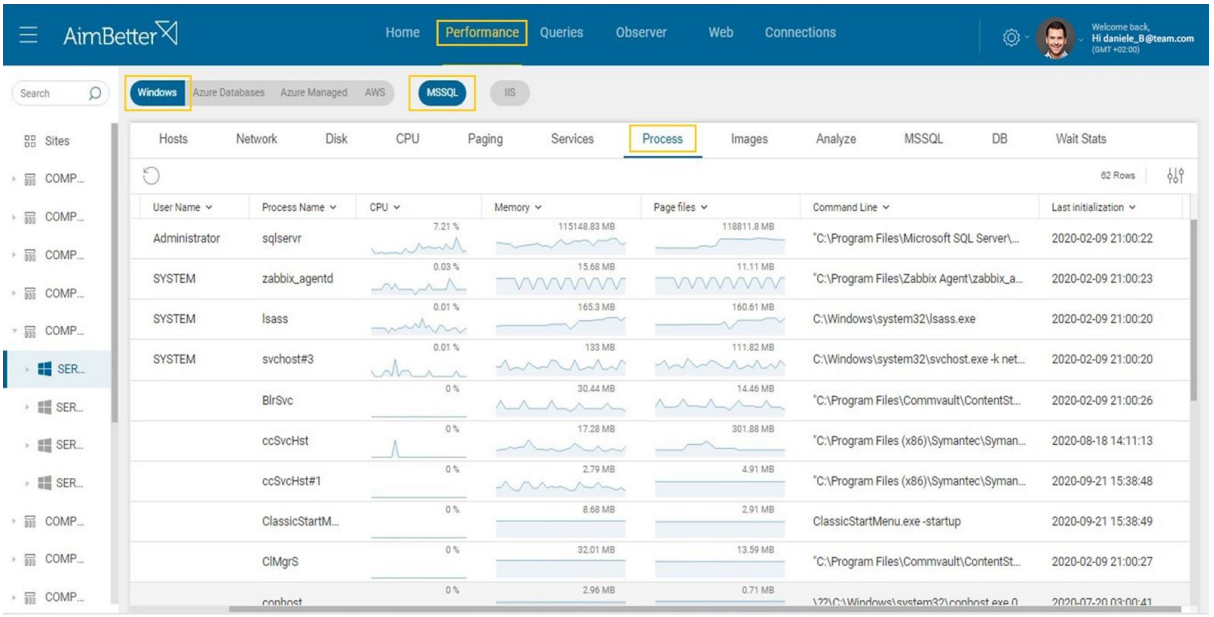
7. Services tab

This tab shows the information about the services currently running - their mode (either manual or automatic), running or not, etc. This is a representation of the services window on the server. In this case, the graph will show either 1 - Up/Running or 0 - Down/Not Running.



8. Process tab

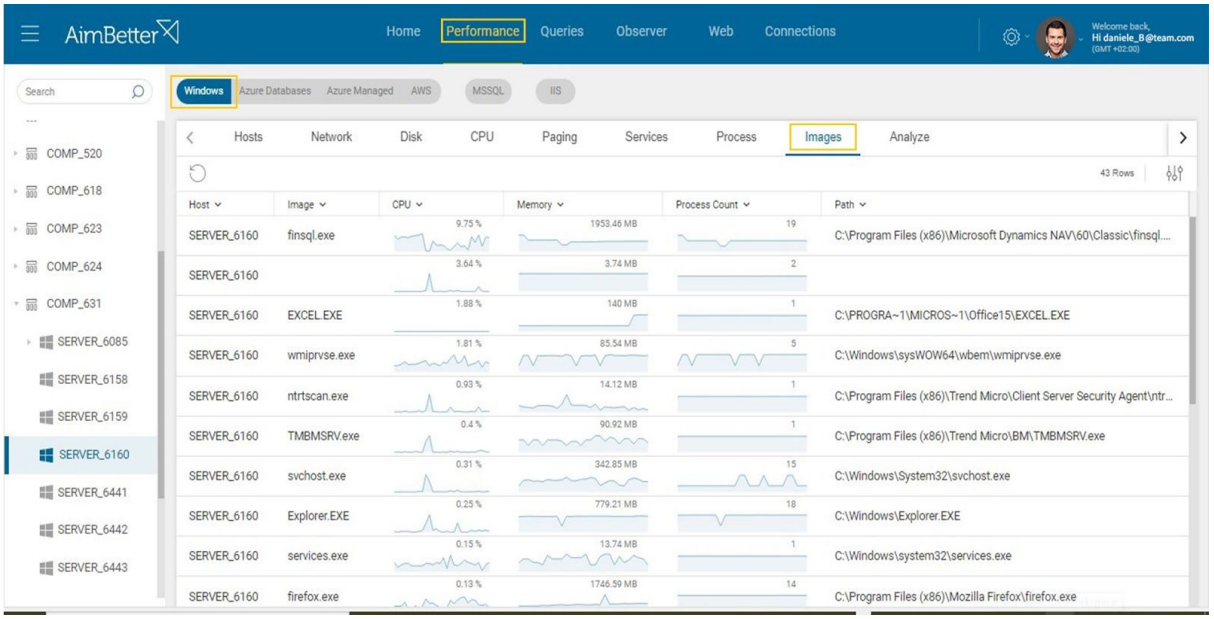
This tab shows information about the different processes running on the server.
You can see their CPU usage, how much memory they consume, page file usage and details of the calling process.



9. Images tab

This tab shows information about how many processes are running under the Image.

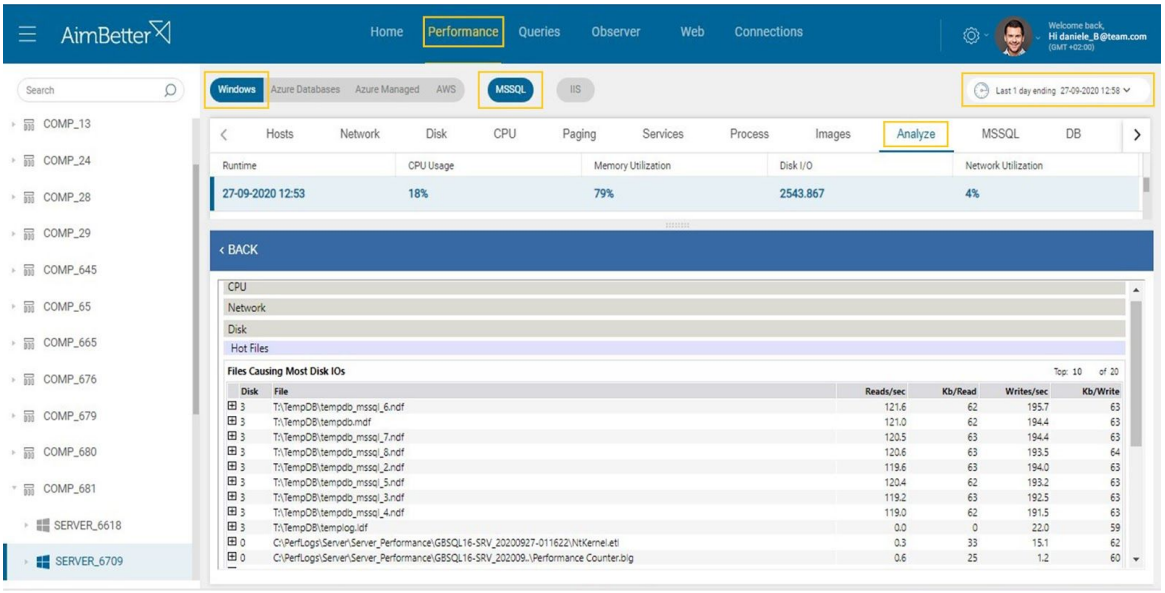
This is usually relevant for terminal servers or terminals that are running multiple processes of the same type. The information is represented in MB.



10. Analyze tab

This tab helps analyse issues such as busy disk or high CPU usage.
Each row is clickable and upon clicking it, an expanded window opens below with additional fields. Those fields are expandable as well once you click on them.
For example, if you want to check Disks utilization, you will click the Disk field and it will expand as well to show another sub menu.

Upon clicking on “Hot files”, a drop-down window expands with information about the different disks, their read and write processes etc. This will give you an idea about what is the workload on the different disks and which file is being written to or read from:



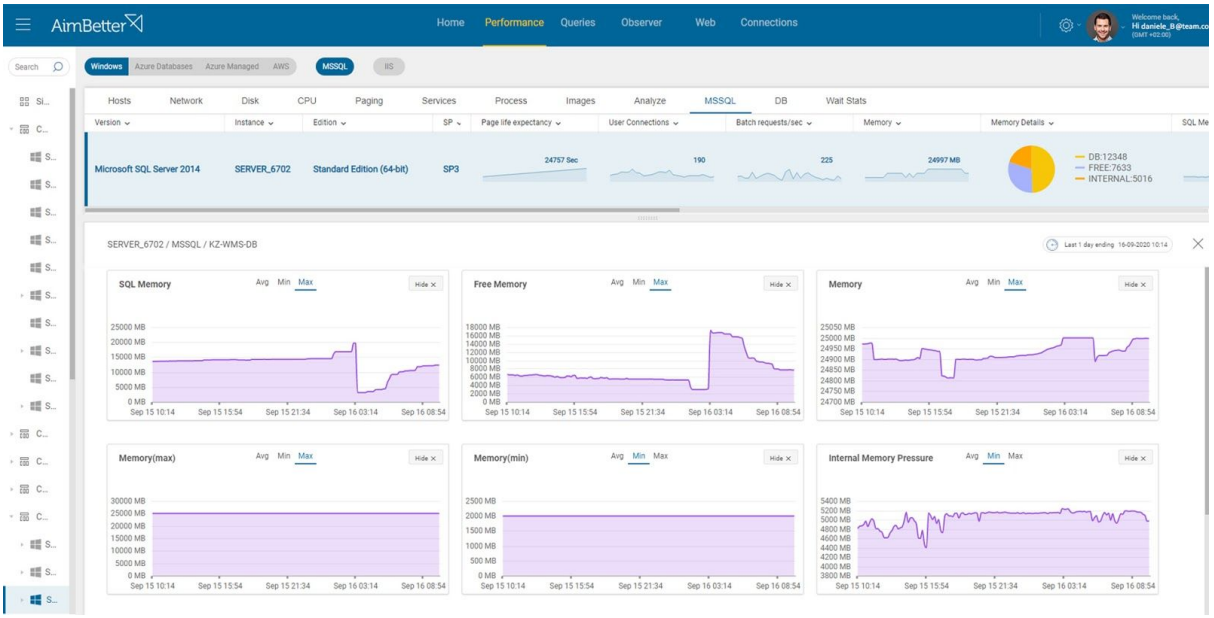
You can also filter the time frame that you want to investigate, by clicking on the filter icon on the top left corner of the screen.

11. MSSQL tab

In this tab, the SQL server information is presented.

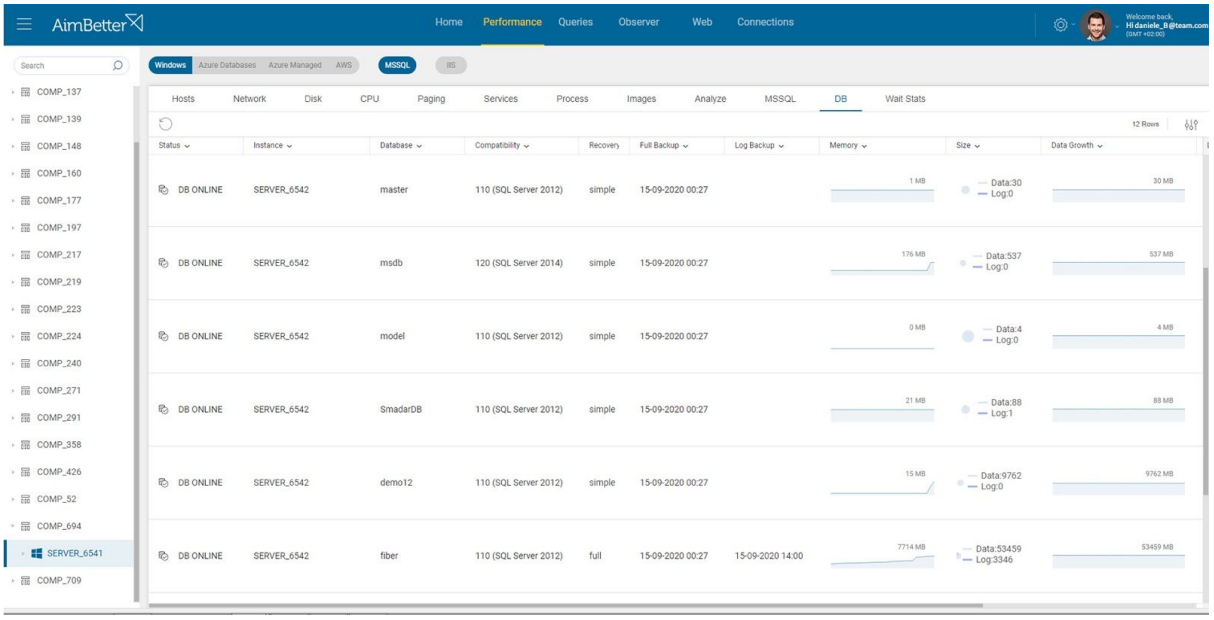
The information here shows the metrics for the SQL version, its service pack, last restart, how much memory is allocated for the SQL, how many cores are available and how many are in use etc.

In addition, as before, clicking the menu button on the top right of the window will enable you to add or remove different metrics to display.

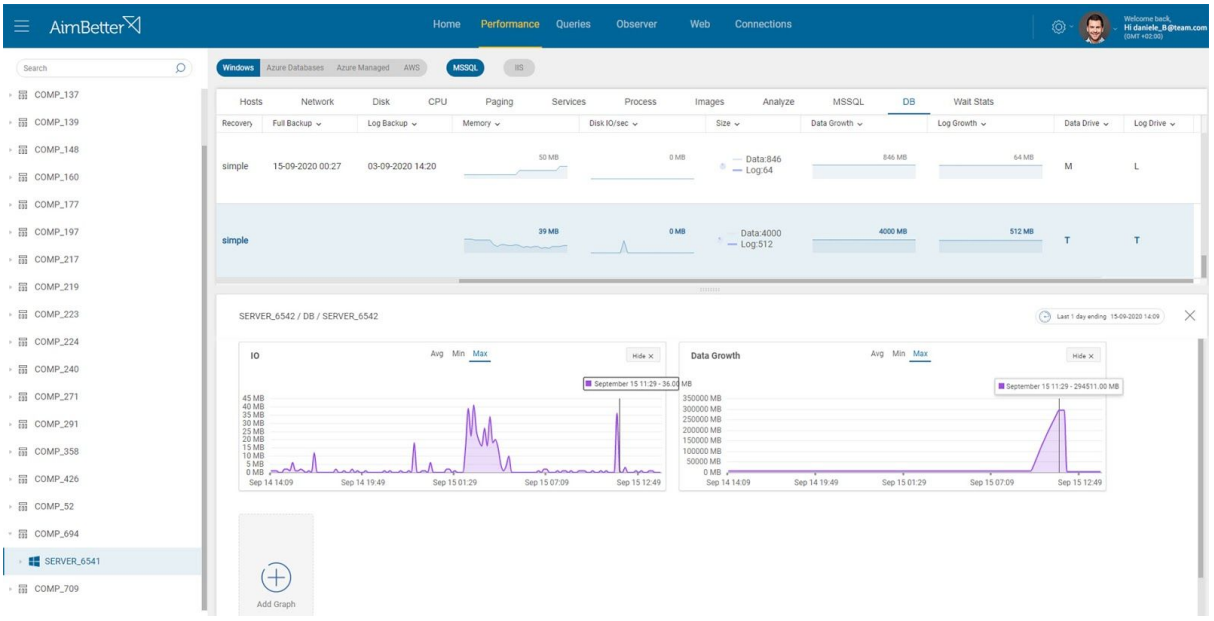


12. DB tab

Here is where the individual databases under the server are represented. You can see here information about the DB, its name, the recovery model, last full backup, last log backup etc.



More metrics are available in the menu as well.

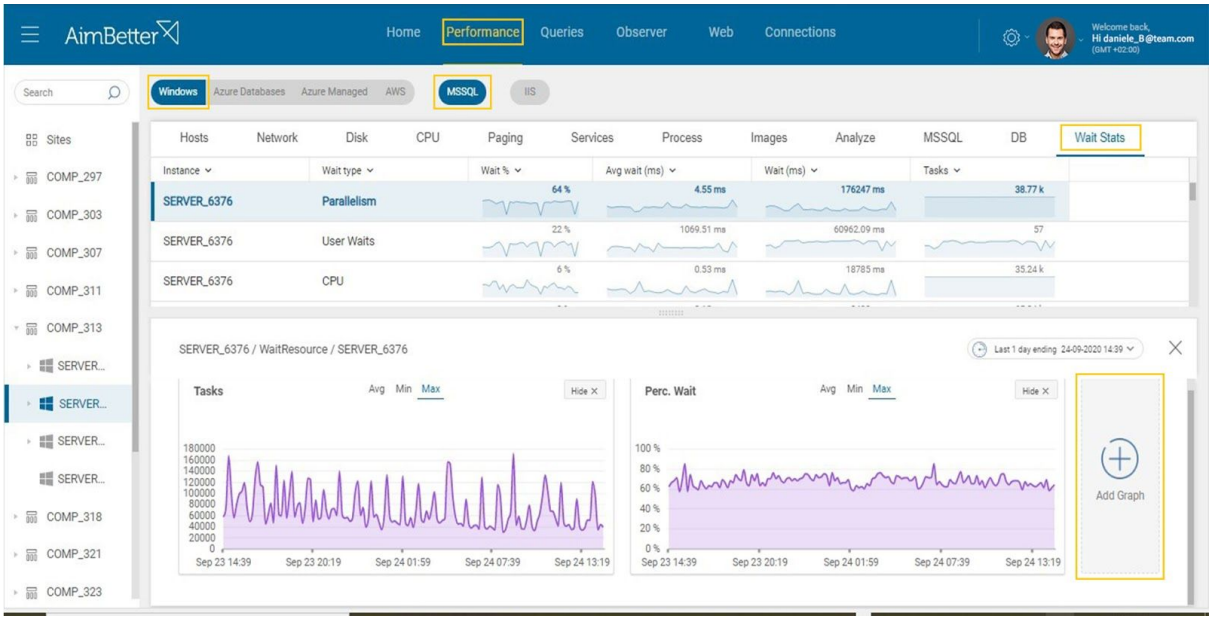


*On this picture, column “data growth” was added by the columns bank icon in order to see the data growth of the specific chosen DB with the IO it requires per second.

13. Wait Stats tab

In this tab, you can see the different wait types and their related information such as Wait

percentage, tasks etc.

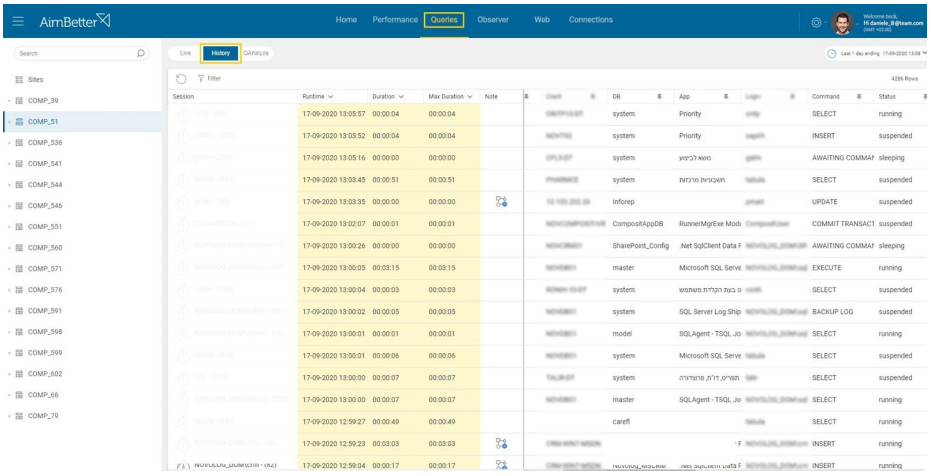


Queries

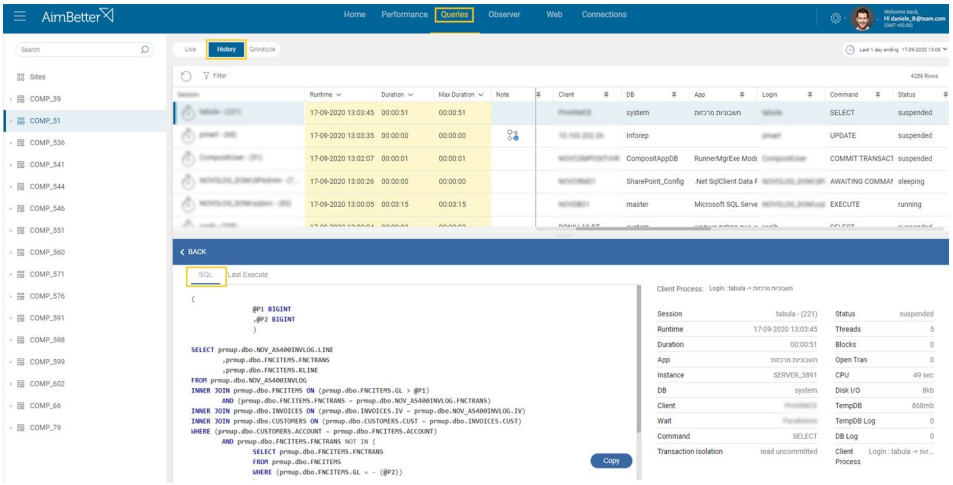
In this Tab, you will see the information on live queries running on the system, historic queries and use query analyser.

1. Live Queries tab

Shown is the queries that are currently running on the system. You can see the information for each session and its session ID, how long the query is running, if the query is blocking others and how many etc



You can click on any of the queries and it will open a window with additional information about that query and its SQL script, like in the example below:



You have the ability to copy the SQL script in order to analyse it and you also have the option to open and see the execution plan for the query.

2. History tab

This will give you the option to look for queries that have stopped running or finished their running cycle.
In addition to that, you can also narrow the search by time span by clicking the top right

corner clock.

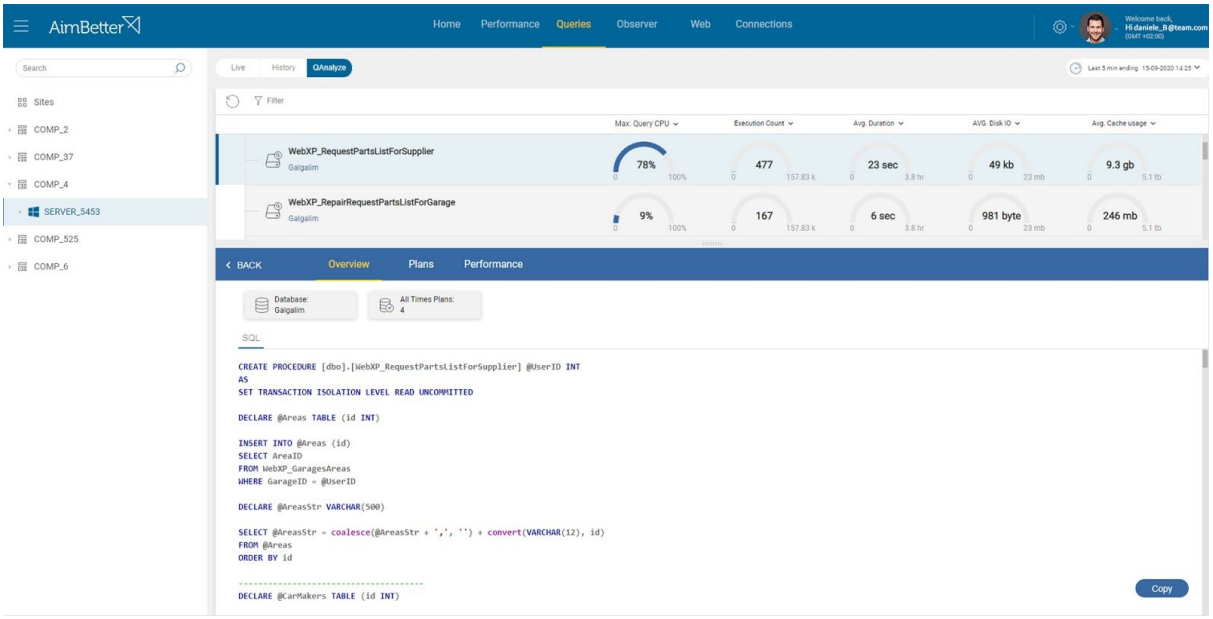
3. QAnalyzer tab

This tab shows the queries that ran in the past 5 minutes (set as default - this can be changed by clicking the top right clock).

It summarizes the queries that have run on the server, how many queries, how many times the query was executed and how long was its duration.

You can drill down to see the SQL script, the execution plan and its performance, just by selecting the query you want to analyse.

You can also filter by different preferences what you want to analyse like recommended index, plan improvement, execution count etc.

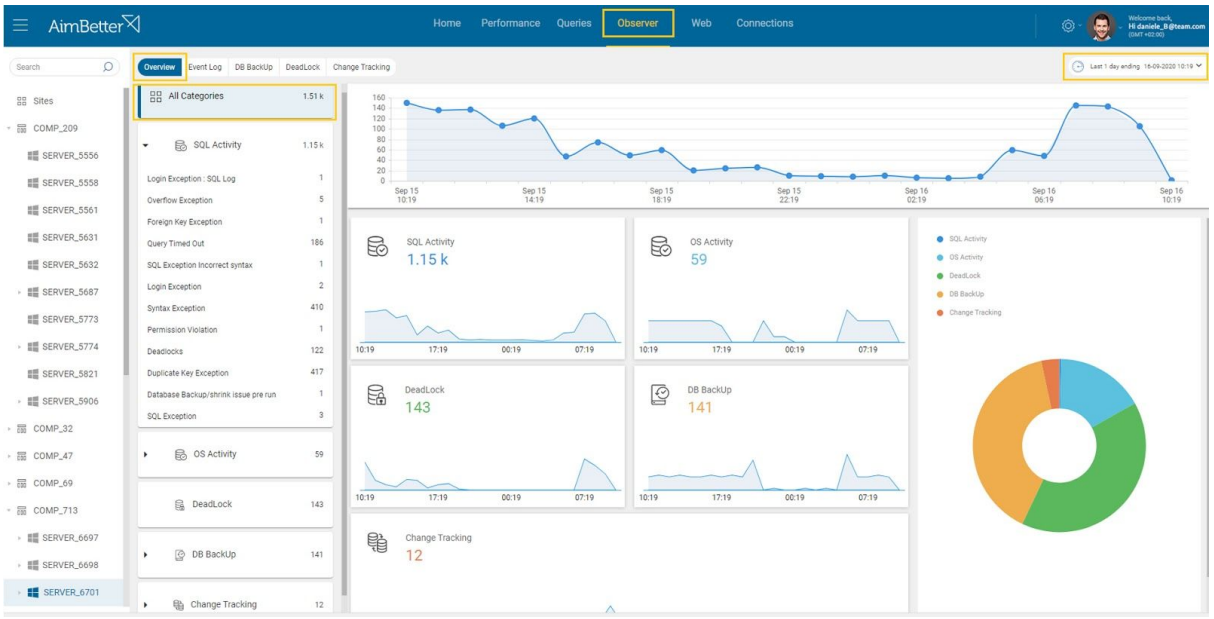


Observer Tab

This tab groups different categories:- Event log, DB Backup, Deadlocks and Change Tracking.

On the main view of this tab, all the categories are represented in a graphical form while clicking either the left side menu or the menu above will redirect you to the individual category and the information it contains.

When you look on the left menu, you can see that some of the categories have a small triangle which means that when pressing it, the tab will expand to show further information:

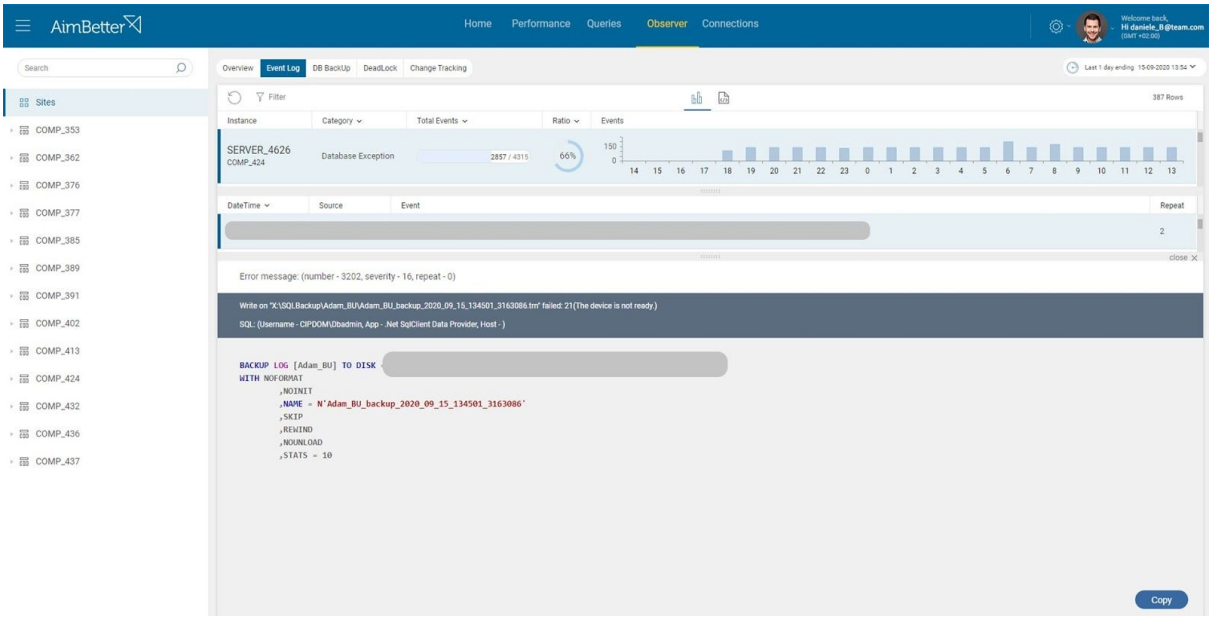


On the next tabs you will notice that there are two Review Options:

- 
  List with graphical timeline and events summed into one line when this icon is selected.
- 
  A textual list that orders all events by category when this icon is selected

1. Event log tab

Both SQL Activity and OS Activity tabs will redirect you to the Event Log tab, where you can find events that happened on either the OS level or the SQL level. These can be filtered as well to see each event by OS or SQL:



*On this screen Aimbetter shows the error message that tells you why the command "backup database" has failed.

If you take a look on the first row - Database exception, you can see that in the past 24 hours, approximately 2800 exceptions occurred.

Each event line is clickable and will expand to show more information.

In the screenshot above, you can see that you selected one of the events and the expanded window below. You can see the information for date and time, source of the event, what the event is and, how many times it was repeated in one session.

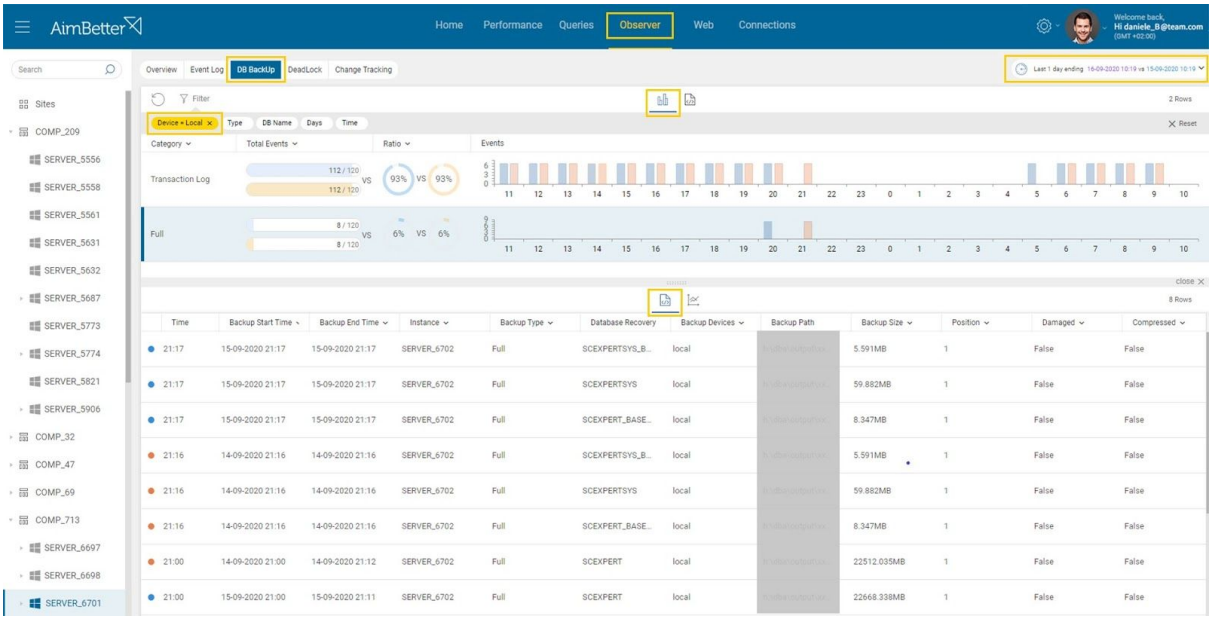
Upon further clicking one of the event lines, another level of information is revealed, with the error message etc.

2. DB Backup tab

This section shows the different backup types on the server.

Clicking on each option (full or transaction log) will open a window below with the information about the backups - when they started, ended, type, to which device (Local, network etc.), path and more.

You can also filter by some more options such as device - the backup path type (local,virtual,network or snapshot); type of backup (full, differential or transaction log); days- a specific day of the week; time - range of specific hours; DB name.



3. Deadlock tab

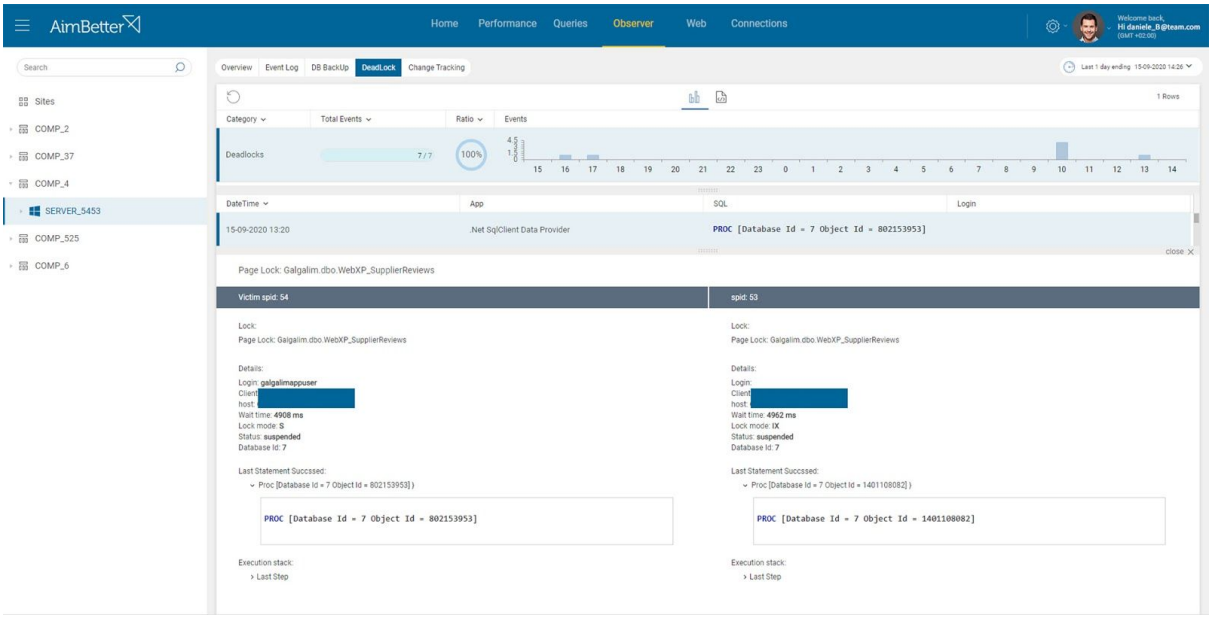
This section presents information about deadlocks on the system.

Deadlock is created in a mode of interoperability between two processes that attempt to perform an update operation (Insert, Update, Delete) on the same object (index, field, record, table) at the same time.

In this mode, the operating system selects one of the processes as Victim and effectively stops it until the second process is completed and releases the resources in its possession for other processes.

You can click the desired event and you will see a window open below with information about the victim (on the left column) and the query that finished its process.
(on the right column).

The events are also clickable and will expand further with information:



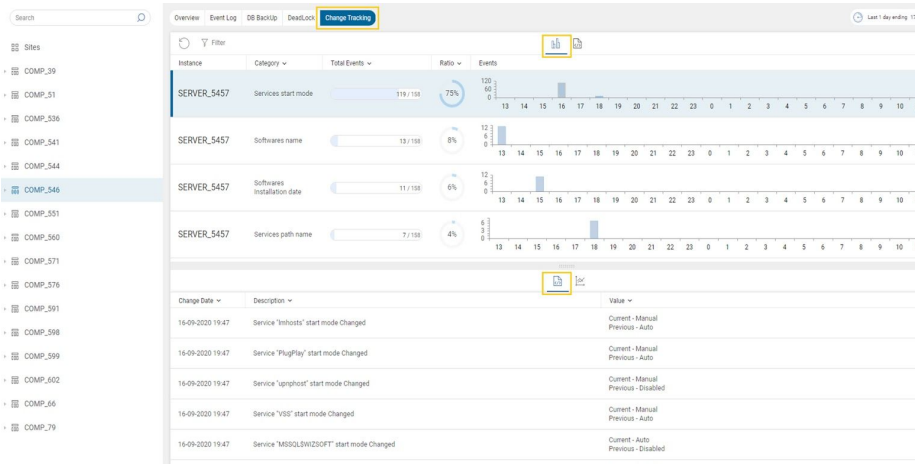
All the information you need to keep track of what is going on in the system.

4. Change Tracking.

On this tab you are able to see informative changes of the server. Change tracking alerts may be about service, software, DB, disk or network changes and more.

For example, if a service that was running on the system until this moment is down (such as tabula task scheduler), you'll get an alert about this change. When it's up again, another alert will be sent. Furthermore, it may be an alert about new disk added, deleting or adding a new database, problem with the DR, new software update or installation, network card changes, etc.

As in other sections, more information is revealed once clicking on the event:

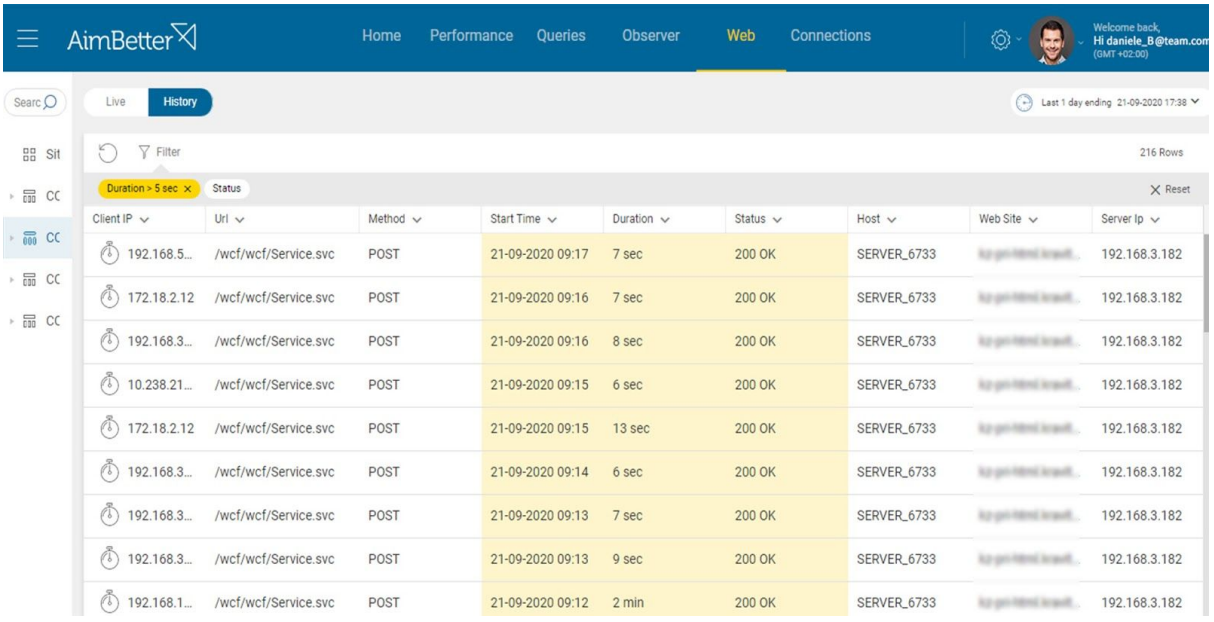


Web Tab

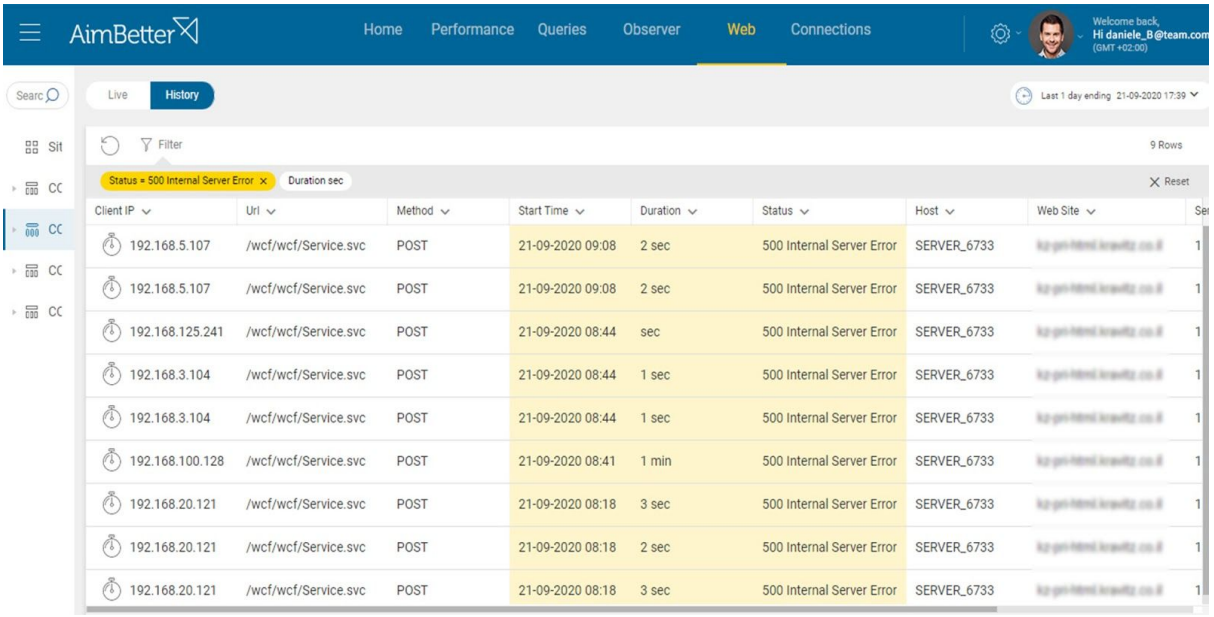
Your web server acts both as the public face of your organization, to allow end users to access the relevant material, and as the channel for in-house users, supporting essential features like email, messaging and so on. In both, accessibility and speed of response is a major factor, so AimBetter tracks and analyses a full range of network metrics to ensure that all material is delivered quickly and intact. Empower your web with full NOC control via AimBetter's extensive range of measurements and alerts.

In this page, you are able to see the information of the site:

- Client IP - The incoming IP.
- URL Request - The page within the site.
- Method - in what way the request to the URL was made. POST or GET.
- Duration - the time it took to reach the page.
- The status of the request. This is returned with either the "OK" response (200), or the relevant standard error code (e.g. 400 - Bad request, 404 - Not found, 500 - Internal server error etc.)



*This picture has a filter by duration showing all url requests that took more than 5 seconds to complete.



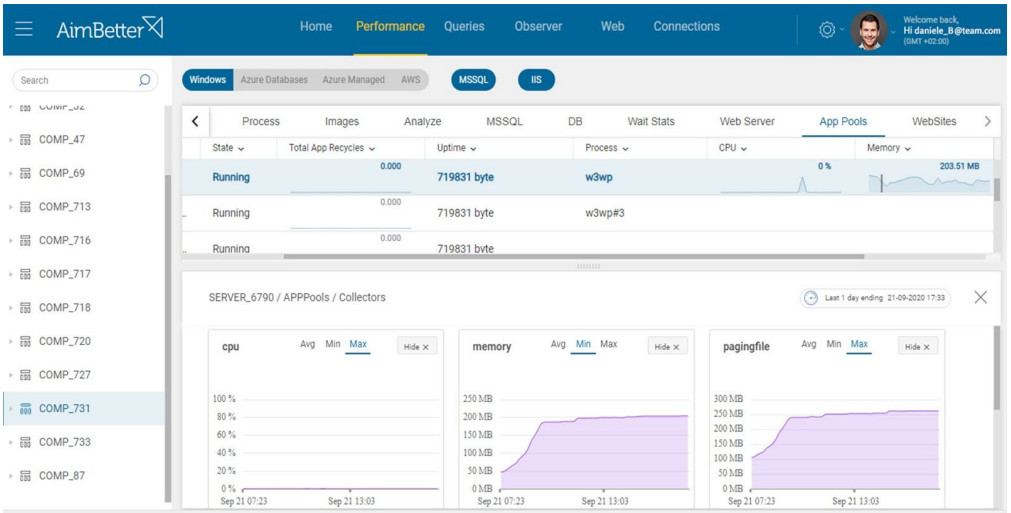
*This picture has a filter by return code. The most critical returned code is 500, which describes an unsuccessful attempt to access a website. Because it may indicate internal server error, it should be treated immediately.

There are two additional tabs of the IIS monitoring part:

APP pools

You can enter this tab on the performance tab.

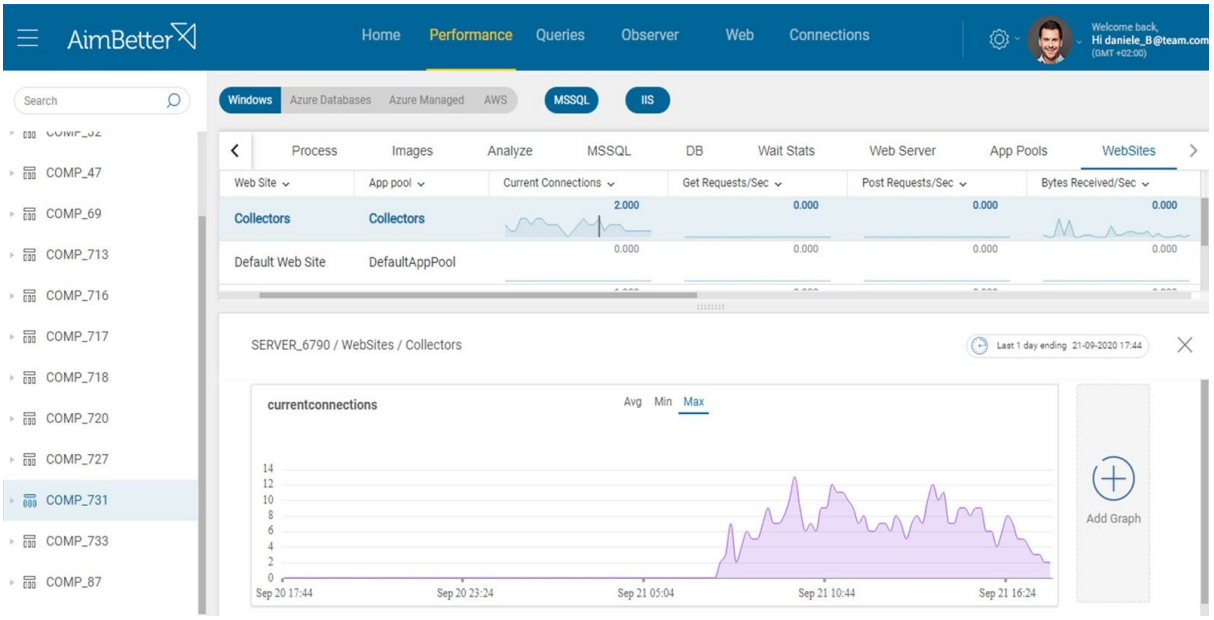
This tab shows data about the application pools' state and usage of OS features. The usage of these features will be shown if the consumption is effective and can be problematic. If so, you'll see number-valued data and graphs of the CPU usage, memory usage and pagefile usage. We can see this on the pictures attached below:



WebSites

You can enter this tab on the performance tab.

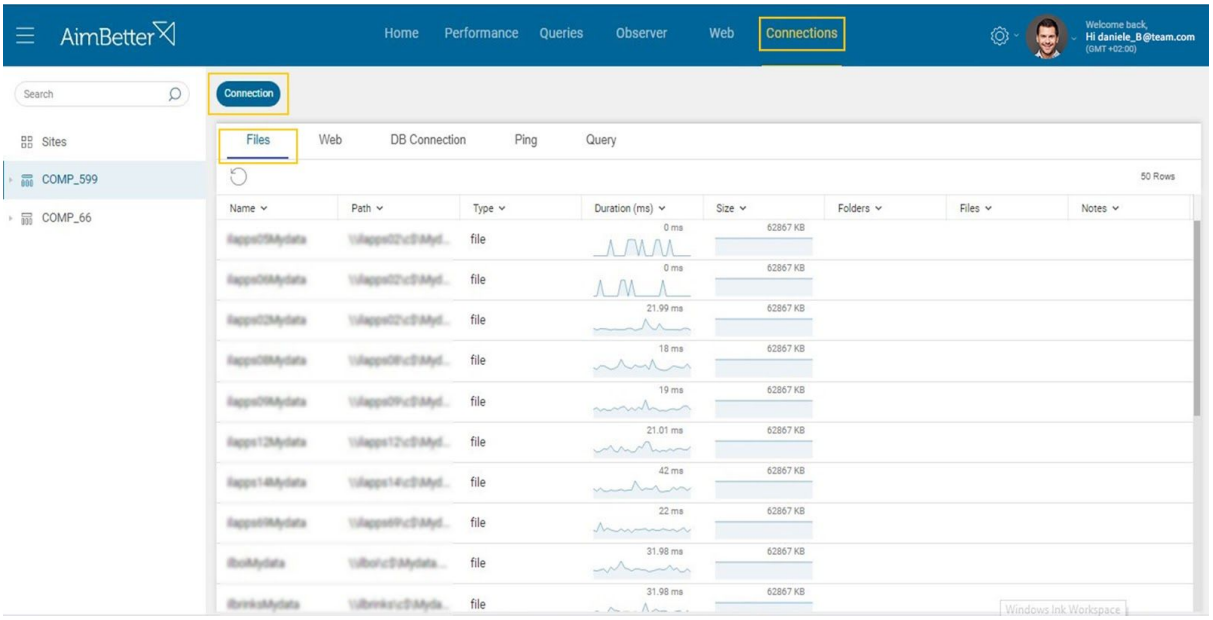
On this tab you're able to see the active websites on the app pools and all data you can get about it. We have data about current connections to the website, get requests per second, post requests per second, and more.



Connections

Our most advanced new feature checks the state of connectivity to physical and logical elements inside your organization such as files, networks, websites and databases. As well, it monitors connections to external services such as credit card payment sites or PayPal and external storage devices, blockchain services and all the other pieces that integrate your enterprise into the wider world.

The choice of which connectivity measures you wish to use is flexible, determined by your own needs. You provide bundles of 50 specific targets of your own choosing. AimBetter displays all this information on the central dashboard along with all the other metrics.



*The file connection type, as shown on this picture, has a real-time alert when you may be under a **crypto attack** by all platforms possible: a phone call, an alert on Aimbetter's website and application push, and also a direct email.