Solace Monitoring Dashboard: Brokers

Dashboard "Solace brokers" lists all known Solace message bokers, with key metrics indicating their availability and activity.

This dashboard would typically be used to get a quick overview to the avalability for one or a set of Solace message broker instances.

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The metrics for each broker instance are repeated vertically as a list, sorted by the hostname. Each row provides information to one broker instance:

Metric	Possible Values	Description	Typical Actions
status	Active (green) Shutdown (red)	Status panel provides the hostname (reduced by the ".sbb.ch" domain name) and Solace Message Protocol (SMP) port, for a given message broker instance. The overall main operational status of this message broker instance is provided as either Active or Shutdown.	If Shutdown, the message broker is unavailable. Usually it should be started. In the event of non-success, the log file needs to be consulted for further analysis of the problem.
client connections	Number with colored scale	The number of current, concurrent connections from clients, either publishing or subscribing towards the broker is listed here. The list may expand to multiple vpn as they are configured on a broker. The scale reflects the maximum amount of subscribers permitted as quota and will turn to warning yellow at 80% quota reached, turn red on 90% of quota reached. The overall limit of client connections for the software message broker is 1000. https://docs.solace.com/Configuring-and-Managing/SW-Broker-Specific-Config/Configuring-Conn-Scale-Tiers.htm	An application approaching the capacity limit of the broker will need to investigate on stale connections. If the capacity is reached with a correctly working applciation, consider a refactoring to limit client connects. Otherwise client connections may need to be distributed over multiple message broker instances.
Mate link latency	Number with unit and colored scale	Mate link latency in the transaction completion to a High Availability (HA) "mate" message broker. Data is replicated to a secondary message broker before commit. The latency therefore has an impact to system performance. It is likely relevant to guaranteed messages only. Critical level is above 7ms, error level set above 8ms. https://docs.solace.com/System-and-Software-Maintenance/SW-Health-Monitoring.htm#Mate-lin	A high latency indicates a performance problem at the network layer, disk or broker cpu, caused by overload or to be addressed by the infrastructure team.
Disk latency	Number with unit and colored scale	Disk latency shows the roundtrip time introduced by persisting messages before a commit is given. The latency therefore has an impact to system performance. It is likely relevant to guaranteed messages only. Critical level is above 7ms, error level set above 8ms. https://docs.solace.com/System-and-Software-Maintenance/SW-Health-Monitoring.htm#Disk	A high latency may indicate that the disk, or access to the disk, is oversubscribed. Considerations are for an application on choice of messaging model (guaranteed messaging in particular). Unavailable or slow subscribers may cause excessive disk spool activity.
Compute latency	Number with unit and colored scale	Compute latency show the time the message broker takes to compute a message. The latency therefore has an impact to system performance. It is likely relevant to application scenario with durable endpoints, extensive selectors, queue browsing or transactions. Critical level is above 7ms, error level set above 8ms. https://docs.solace.com/System-and-Software-Maintenance/SW-Health-Monitoring.htm#Compute	A high latency may indicate that the cpu is oversubscribed, the cpu is being blocked by another application, or access to virtual memory is somehow retarded. Considerations to make are leaning towards the application model of message selection and choice of messaging protocol.
Transfer volume IN	Number with unit and colored scale	The amount of data per second, as it is published into each of the vpn with the broker. The scale reflects the amount of data passing through the vpn of a broker per second. The upper limit for transfer volume is set to 10 MB/sec per vpn. The scale will turn to warning yellow at 80% quota reached, turn red on 90% of quota reached. Those quota values are indicators only, however. The actual maximum quota a Solace message broker can handle mainly depends on the hosting environment, the type of messages being sent and the size of the messages sent. See Solace PubSub+ Throughput for reference data provided by Solace.	Solace message broker is capable of handling 2x as much data for direct messages vs. guaranteed delivery, which should be taken in consideration for application design and capacity planning. Applications reaching the limits of data transfer have either reconsider the archiecture and volume of the data that is sent or recieved by their application, or will need to scale out over more message broker instances.
Transfer Valume OUT	Number with unit and colored scale	The amount of data per second, as it is sent out from each of the Vpn with the broker towards subscribed clients. The scale reflects the amount of data per second. The unit for the data may alter depending on the value. The upper limit for transfer volume is set to 10 MB/sec per vpn. The scale will turn to warning yellow at 80% quota reached, turn red on 90% of quota reached. Those quota values are indicators only, however. The actual maximum quota of the Solace message broker depends on the hosting environment and also on the type of messages being sent.	same as above.