

F.19 Resource Limits

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The RESOURCE_LIMITS [policy](#) controls the resources that the Service can use in order to meet the requirements imposed by the [application](#) and other [QoS](#) settings.

If the DataWriter objects are communicating [samples](#) faster than they are ultimately taken by the DataReader objects, the [middleware](#) will eventually hit against some of the QoS-imposed resource limits. Note that this may occur when just a single DataReader cannot keep up with its corresponding DataWriter. The behavior in this case depends on the setting for the RELIABILITY QoS. If reliability is BEST_EFFORT then the Service is allowed to drop samples. If the reliability is RELIABLE, the Service will block the DataWriter or discard the sample at the DataReader in order not to lose existing samples.

The constant LENGTH_UNLIMITED may be used to indicate the absence of a particular limit. For example setting max_samples_per_instance to LENGTH_UNLIMITED will cause the middleware to not enforce this particular limit.

The setting of RESOURCE_LIMITS max_samples must be consistent with the max_samples_per_instance. For these two values to be consistent they must verify that $\text{max_samples} \geq \text{max_samples_per_instance}$.

The setting of RESOURCE_LIMITS max_samples_per_instance must be consistent with the [HISTORY](#) depth. For these two QoS to be consistent, they must verify that $\text{depth} \leq \text{max_samples_per_instance}$.

An attempt to set this policy to inconsistent values when an [entity](#) is created or via a set_qos operation will cause the operation to fail.

Source: [DDS 1.4 Spec](#)

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