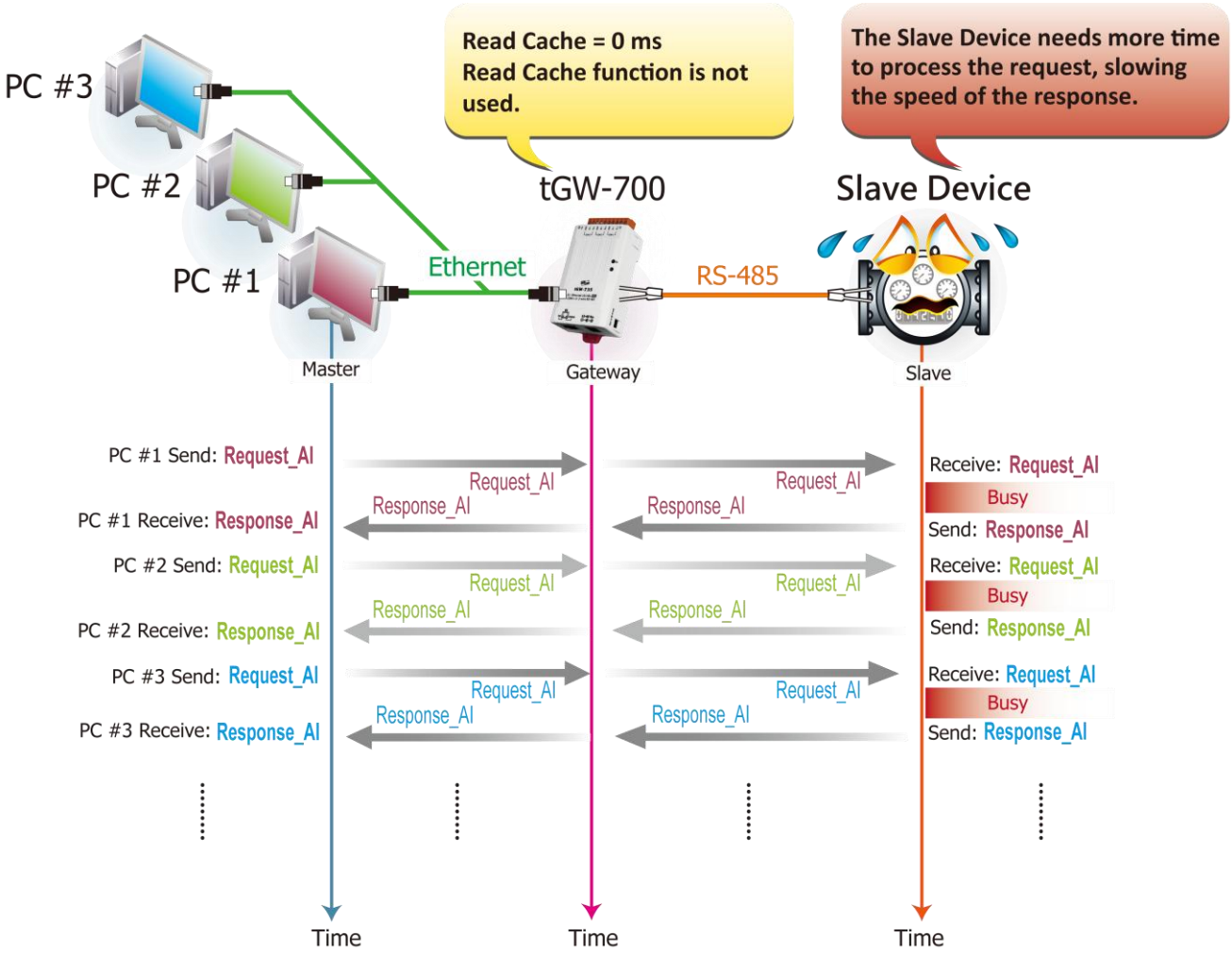
Q. What is the Read Cache function on the tGW-700?

A: Sharing Modbus RTU/ASCII device/data between several master devices can increase the loading of the slave devices when responding to the same request. Consequently, the presence of additional Master devices will increase the likelihood that an error will occur, mainly because more time will be needed to process the request, slowing the speed of the response.

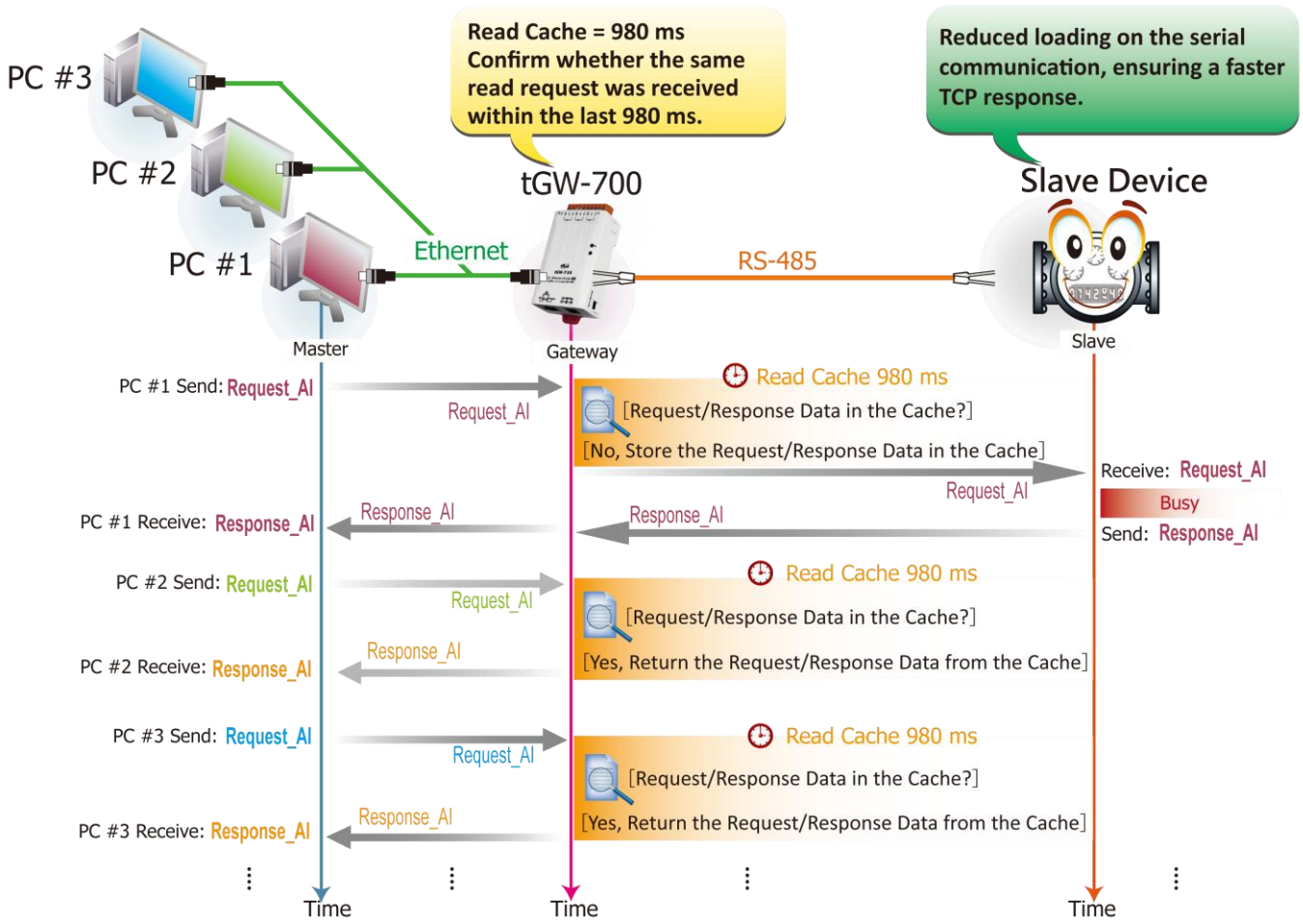


The Read Cache function can be used to store previous requests/responses in the cache, so that when the tGW-700 module receives a read request from the Master, it will confirm whether the same read request was previously processed within a specified period time. If so, the tGW-700 will return the response data that was stored in the cache. If it is a new request, both the request and response information will be stored in the cache for future use. As a result, the loading on the serial communication can be reduced, thereby ensuring a faster TCP response.

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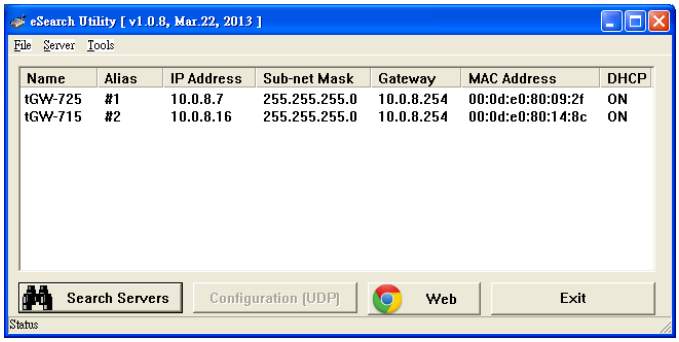
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Note that tGW-700 modules only support a “read” function cache, and does not support a “write” function cache. The tGW-71x/72x/73x series modules provide 32/16/10 request/response buffers, so the tGW-71x module has a larger buffer and better cache capabilities.



Follow the procedure described below to enable the Read Cache function on the tGW-700:

Step 1: Confirm that both the Ethernet connection and the tGW-700 series module are functioning correctly. For detailed information regarding how to install, configure and operate your tGW-700 series module, refer to the tGW-700 Quick Start Guide, which can be downloaded from:



Download the Quick Start Guide.

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Step 2: Execute the eSearch Utility to search for any tGW-700 modules connected to the network, and then click the name of the tGW-700 module to select it.

Step 3: Click the **"Web"** button to log in to the web configuration pages for the tGW-700 module (use the default password **"admin"**), or enter the URL address of the tGW-700 in the address bar of the browser.

Step 4: Click the **"Port1"** tab to display the **Port1 Settings** page.

Step 5: **Specify the read cache time** in the **Read Cache (ms)** field (default: 980 ms), and then click the **"Submit"** button to complete the configuration.

Settings:

Port Settings	Current	Updated
Baud Rate (bps)	9600	9600 ▾ bits/S
Data Size (bits)	8	8 ▾ bits/character
Parity	None	None ▾
Stop Bits (bits)	1	1 ▾
Slave Timeout (ms)	300	300 (Default: 300)
Read Cache (ms)	980	980 (10, 20... 65530, Disable: 0)
Local TCP Port	502	502 (Default: 502)
TCP Timeout (seconds)	180	180 (1 ~ 65535, Default: 180, Disable: 0)
Modbus Protocol	Modbus RTU	Modbus RTU ▾
Pair-Connection Settings (Master/Slave Mode)	**Current**	**Updated**
Server Mode	Client	Client ▾ (Server=Slave, Client=Master)
Modbus Protocol	TCP	TCP ▾
Remote Server IP	10.0.8.49	10 . 0 . 8 . 49
Remote TCP Port	502	502
RTU Slave ID (1~247)	7	7 (0: Bypass, No check)
TCP Slave ID (1~247)	1	1 (0: Same as RTU)
		Submit

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