# Scenario 04 – A Few Users Complaining

The objectives of this scenario is to highlight the use of Log Parser. Scenario 04 requires the student to use Log Parser to analyze a given set of logs to look for patterns and come up with a hypothesis for what can be the cause of the delay. The second lab in this scenario will allow them to use additional tools to find the root cause on the platform.

## Origin

The idea for this scenario originates from numerous engagements, where custom HttpModules or Handlers have been the cause of poor performance or functional issues. These customizations are often hard to find just looking though ULS Logs and similar as they are often not visible as part of the main request processing, but instead hidden in the pre- or post-processing.

One of the ways to determine this is that we have identical setups with different behaviors – where identical is “everything visible” – Masterpages, Page Layouts, Web Parts, etc.

Checking web.config for custom components is always a good initial activity of a troubleshooting session.

This scenario implements an HttpModule, which has a very simple implementation. It looks at all requests, including images, scripts, etc., and if the UserAgent accessing the server contains FireFox, it will apply a delay of ~2 seconds. So users using IE, Chrome, etc. will not experience the problem.

To repro the problem, the students can either access the sites from FireFox or use IE Developer Tools to simulate FireFox by changing the UserAgent.

For the second lab, we have added a Monitored Scope “revealing” that it is an HttpModule to guide the students in the right direction.

## Prerequisite Lessons

For the students to work with this scenario they should have been through the **ULS, Disassembler, and Log Parser** lessons.

## Lab 1 Tasks

By leveraging demonstrated troubleshooting tools, the students should complete the following steps as part of this troubleshooting scenario:

1. Find the pattern of why the pages render slowly
2. Present a possible hypothesis

## Lab 1 Answers and key discussion points

This section highlights some of the key discussion points of the scenario

### Answers

1. The logs contain mostly request for one page only. It is also the same user accessing all the pages. There will be some pages (also admin pages) standing out, but these are one time occurrences and should be ignored (could be warm-ups, etc.). So basically the only significant difference is the UserAgent, and if you create a query that shows average time-taken and group by user agent, the difference will be very significant – especially when comparing the before and after logs.
2. The hypothesis is that specific browser types (FireFox) is causing the issue.

## Lab 2 Tasks

By leveraging demonstrated troubleshooting tools, the students should complete the following steps as part of this troubleshooting scenario:

1. Continue the investigation using tools on the server
2. Determine root cause
3. Present a possible solution

## Lab 2 Answers and key discussion points

This section highlights some of the key discussion points of the scenario

### Answers

1. Students can now investigate on the server using any tool, and ULS log is a good place to start. They should now be able to reproduce the issue using FireFox or Dev Tools with a changed UserAgent. With Dev Tools they can also use Network Tracing to see that also Images and Scripts are affected by the “slowness” and this could lead them in the direction of a central component like an HttpModule. Looking in the ULS, they should also find Monitored Scope entries for the execution of the HttpModule.  
   Some will also “cheat” and look for an assembly called Scenario04.dll – looking at this in a disassembler should guide them in the direction of the HttpModule.
2. The HttpModule is causing all requests from a FireFox browser to be delayed.
3. Remove the HttpModule (added using SPWebConfigModification) or optimize the Module. This will also be a good opportunity to discuss web.config modifications and strategies for this.