

# Performance study of ARC middleware components

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## Impact

We assume that presented data could be useful for users and developers of distributed computational infrastructures and could contribute to the definition of common test cases and methods to evaluate performance parameters.

## Summary

The goal of the presentation is to show the results of performance study of ARC middleware components (v EMI-3.0.0). Obviously potential users of distributed resources cannot easily compare the performance of different computational distributed resources, for example grid infrastructures. One of reasons is missing commonly accepted approach how to define the test cases and how to evaluate the results. We used proprietary test cases to study the performance of job submission process between clients and a few computer elements and performance of information systems. From previous studies we concluded that the performance of the information system is a limiting factor to increase the performance of job submission. The data were collected using proprietary and standard (ARC Nagios probes) tools.

## URL

<http://arc-emi.grid.upjs.sk>

## Description

We study job submission between a few clients and a few computer elements i.e. we tested really small infrastructure. The main advantage of this approach is that test cases and evaluation of the results are relatively simple and can be verified by other groups. One of disadvantage of this approach is that results cannot be simply applied for bigger infrastructures.

The tools used to collect data (proprietary tool and Nagios probes) enable us to obtain the precise results on server and client side.

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