

Oracle WebLogic Server

WebLogic Diagnostic Framework

WLDF

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Oracle WebLogic Server - WebLogic Diagnostic Framework - WLDF

The Scenario

What options do you have when users are complaining about the performance of applications running on WebLogic?

One very useful option is the capability of generating, gathering, and analyzing diagnostics data about WebLogic servers to find out and fix performance problems.

The WebLogic Diagnostic Framework - WLDF

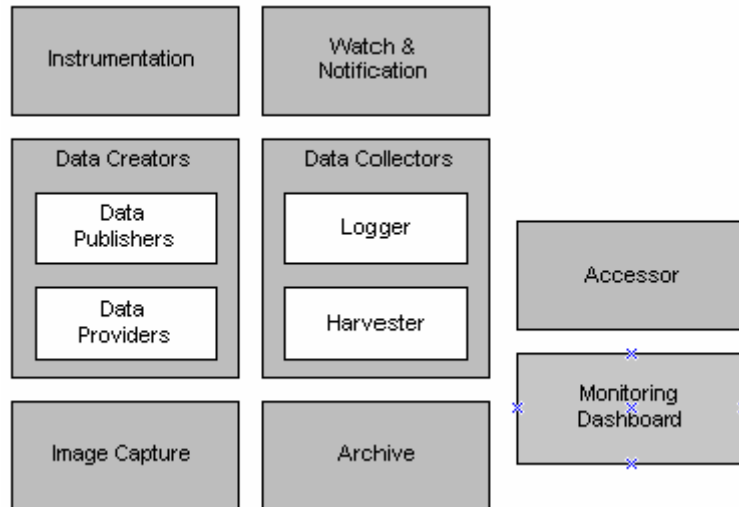
The WebLogic Diagnostic Framework (WLDF) is a set of components orchestrated together to collect, archive, and access diagnostic information about a WebLogic Server instance and its applications.

Using WLDF services, diagnostic data generated by a running server and the applications deployed within its containers can be:

- Created
- Collected
- Analyzed
- Archived
- Accessed

By analyzing this diagnostic data, you can look into the run-time performance of WebLogic servers and its applications, isolate and solve performance problems.

Architecture



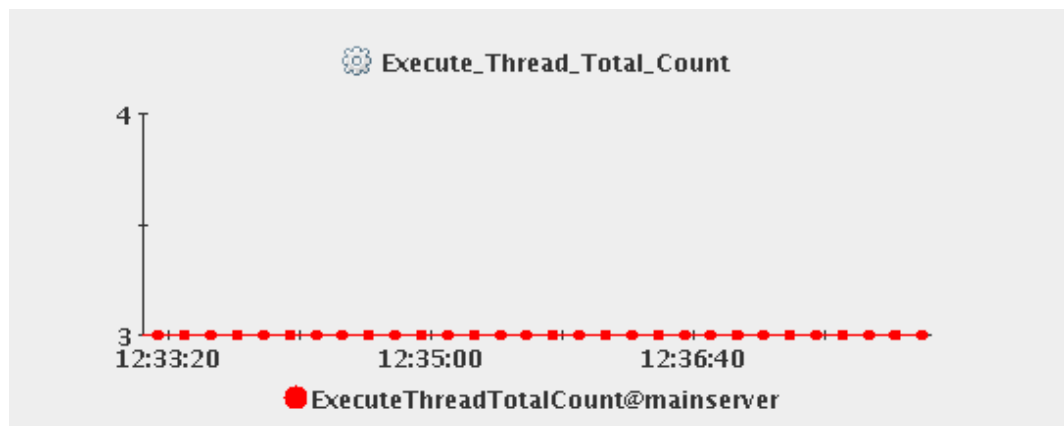
The WLDF Console Extension

The WLDF Console Extension provides a set of visual tools you can use to directly manipulate objects to display diagnostic data about WebLogic Server instances.

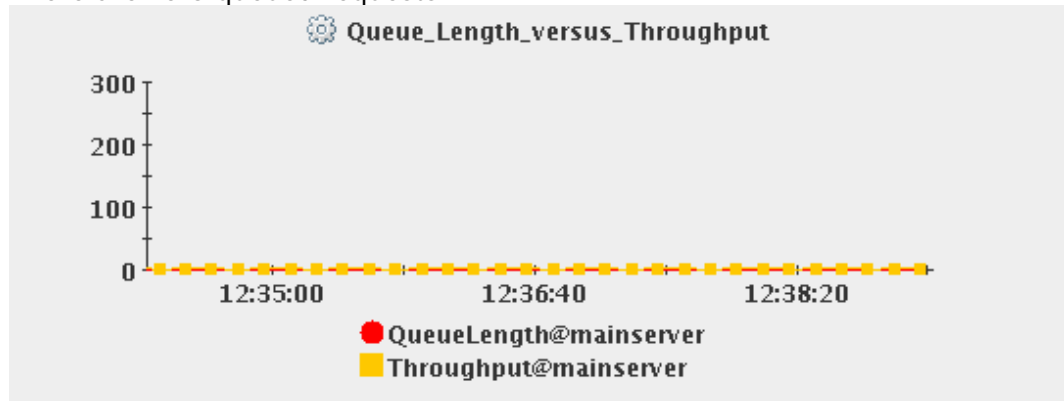
WLDF Console Extension Example

After starting up WebLogic and still in an idle state:

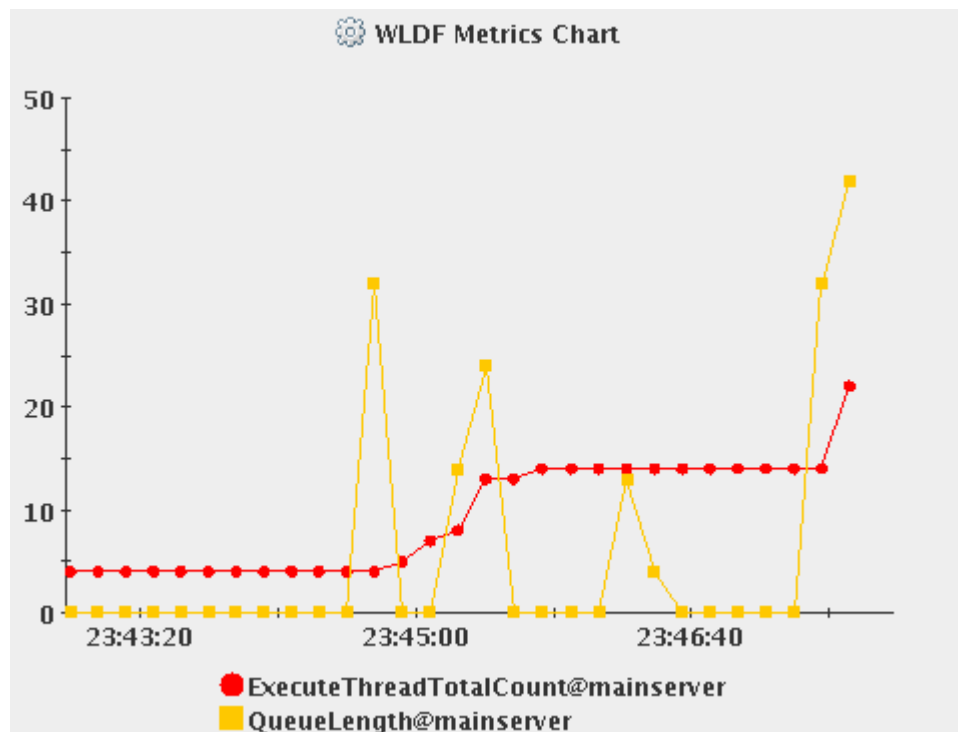
The number of execute threads remains constant at 3.




There are zero queued requests.



As the load starts to ramp up, more execute threads are spawned and at some points it time requests have to wait to be executed.



Self-Tuning Thread Pool(Filtered - More Columns Exist)

| Active Execute Threads  | Execute Thread Total Count | Execute Thread Idle Count | Queue Length | Pending User Request Count | Completed Request Count | Hogging Thread Count | Standby Thread Count | Throughput | Health |
|--|----------------------------|---------------------------|--------------|----------------------------|-------------------------|----------------------|----------------------|-------------------|--|
| 12 | 16 | 0 | 29 | 29 | 107225 | 0 | 2 | 183.0314585319352 | <input checked="" type="checkbox"/> OK |

Conclusion

WLDF and the console extension can be extremely helpful while troubleshooting WebLogic server performance problems.

You can learn more about WLDF by attending the WebLogic Monitoring and Performance Tuning course.

The greatest place to take such training is DesTech in Toronto, Ontario.

Here is a link to the [Oracle WebLogic Monitoring and Performance Turning](#) course by Oracle University and delivered by Destech.

Feedback

Let us know how you have been using WLDF, what you like about it and what challenges you have faced for utilizing WLDF.

You can send your feedback online at www.2dev.com or by sending us an email at feedback@2dev.com.

About the author

Marcos Cubric, PMP is an IT Project Manager and a Senior Consultant. Marcos has over 20 years experience in management and implementation of Information Technology and specializes in Oracle Server Technologies. His focused areas of expertise are Oracle Database, Oracle Application Server, Oracle WebLogic, Oracle Identity Management, Oracle Real Application Clusters, Oracle Data Guard, Server Security, SQL Tuning, Server Architecture & Design and Project Management.

As the senior partner in “GCM Sistemas and Consultoria”, he was responsible for leading and directing the technological visions of this Rio based Consulting firm. As a senior partner Marcos also racked up expertise on business development, marketing and human resource management.

Marcos has been in his current role since 2001 as a Project Manager and an Oracle Solutions Architect at DesTech, a highly regarded Professional Services firm in Toronto, Canada.

In the past 14 years, through GCM and DesTech, Marcos has taught many courses for Oracle University across North and South America with many citations and awards to his name.



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