

Fugaku Support Site users' guide

Fourth edition

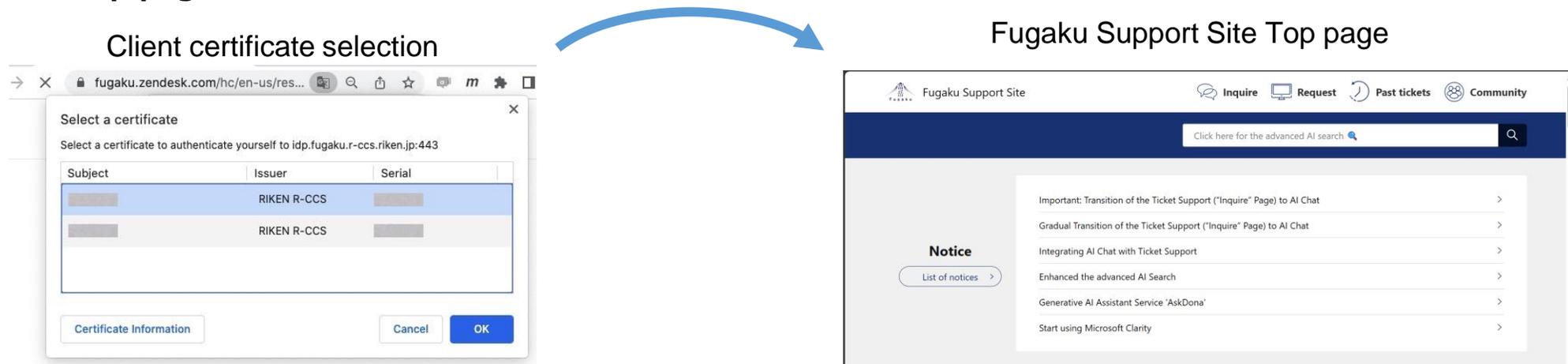
RIKEN R-CCS
2025/03/14

About this document

- About this document
 - The "Fugaku Support Site" has been launched to handle technical inquiries and various requests after the start of supercomputer Fugaku operations. The "Fugaku Support Site" is a web browser-based tool built using the service infrastructure of the Zendesk ticket-driven service. Ticket issuance and updates are available at all times, except during maintenance periods.
 - This document serves as a user guide for those who have completed account registration and initial setup for the user portal of supercomputer Fugaku, enabling them to seek technical advice and submit various requests through the "Fugaku Support Site."
- Revision history
 - 2022/05/10 (First Edition): Initial draft provided by Eclect, organized and published by the R-CCS Operations and Computer Technologies Division.
 - 2023/07/05 (Second Edition): Added sections on "What to do if login fails" and "When your questions or issues are resolved." Updated pages for "Top Page Structure" and new "Inquire" form.
 - 2024/04/11 (Third Edition): Updated due to changes in site design.
 - 2024/03/14 (Fourth Edition): Revised the explanation on the "Inquire" page, replacing the ticket form with a chat interface using AskDona, a generative AI assistant introduced by GFLOPS and RIKEN in July 2024.

Logging into the Fugaku Support Site

- Pre-setup
 - To use the Fugaku Support Site, a client certificate must be installed in your web browser. If you have not set this up yet, please refer to the Startup Guide for installation instructions.
- Logging into the Fugaku Support Site
 - Open your web browser and go to <https://fugaku.zendesk.com/>.
 - On the initial authentication page, authenticate using your client certificate.
 - Select the client certificate used for the User Portal, then click [OK] to proceed to the Fugaku Support Site top page.



- Login Issues
 - If you encounter login issues, there may be problems with authentication credentials or the connection to the authentication server. Please refer to the following article and try logging in again.
 - <https://fugaku2nd.zendesk.com/hc/en-us/articles/7449221664655>

Top page of Fugaku Support Site

Chat with AskDona, a generative AI trained on Fugaku manuals and knowledge base.

Request ticket form

Past inquiries/requests (all)

Advanced AI search

Platform for user-to-user problem solving and announcements

The screenshot shows the top page of the Fugaku Support Site. At the top, there is a navigation bar with links for 'Inquire', 'Request', 'Past tickets', and 'Community'. Below this is a search bar with the text 'Click here for the advanced AI search'. A 'Notice' section contains several announcements, including 'Important: Transition of the Ticket Support ("Inquire" Page) to AI Chat' and 'Gradual Transition of the Ticket Support ("Inquire" Page) to AI Chat'. Below the notices is a 'Knowledge base(FAQ)' section with a sidebar menu and a list of articles under 'General' and 'User Resources'. To the right of the FAQ is a 'Fugaku Schedule' calendar for March 2025, showing system maintenance and medium-scale job execution. At the bottom right, there is a 'Past tickets' section with a 'List of past tickets' link and a message stating 'There are no tickets at the moment'.

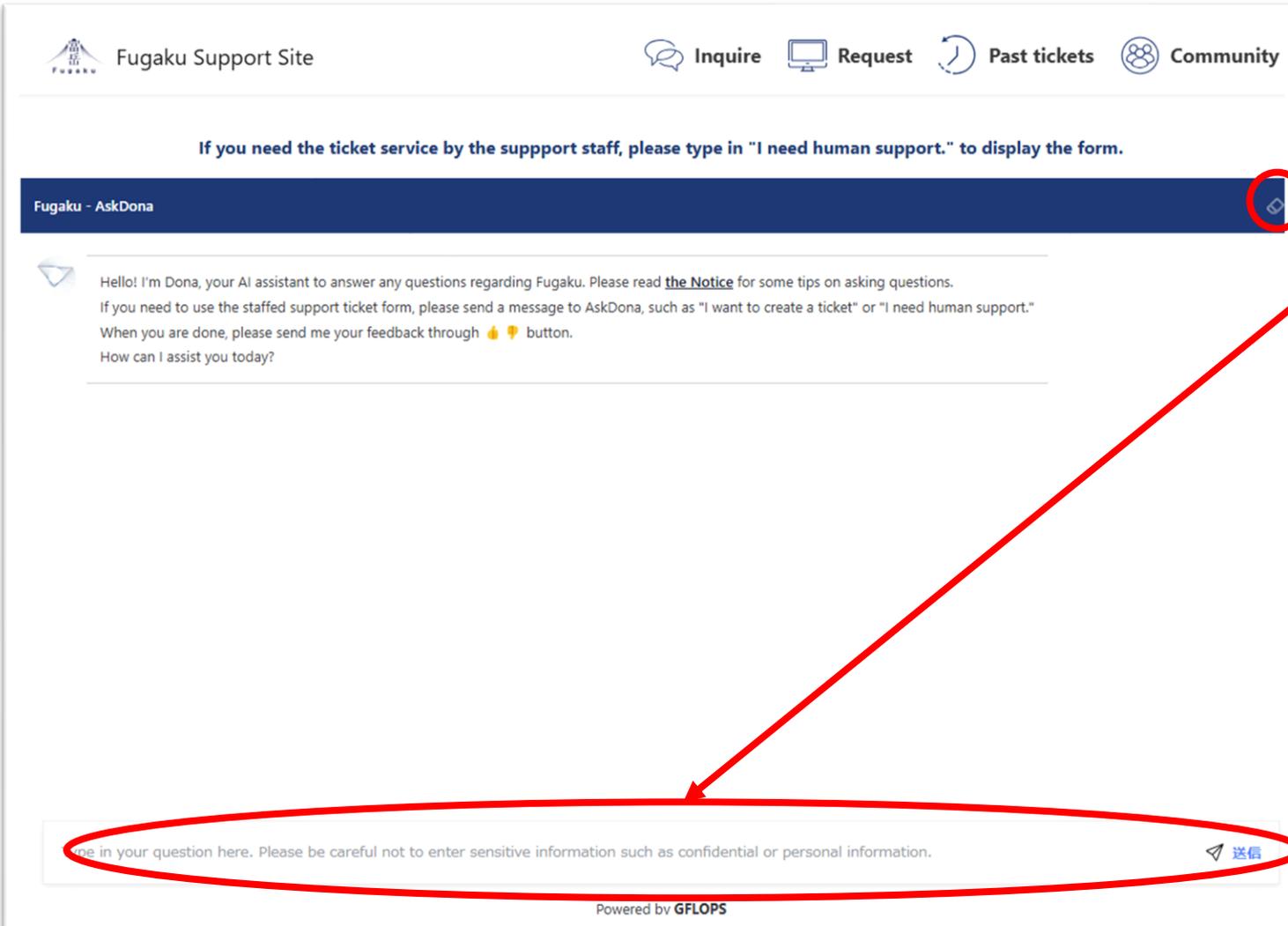
FAQ articles

Fugaku schedule

Past inquiries/requests (unsolved & selected)

"Inquire" page

The generative AI assistant AskDona, trained on Fugaku manuals and knowledge base, provides quick and accurate answers to questions about Fugaku usage in a chat format.



Conversation reset button
(Press this when asking a question on a different topic.)

Enter your question here
(In a conversational format, not just keywords.)
AskDona can provide answers based on data in the special database for Fugaku, generate code, and links for creating human support tickets.

AskDona's Database (Continuously Expanding)

- Fugaku User Guides (System Usage, Programming Guide)
- Manuals (Languages, FEFS, Job Management Software)
- Case studies on A64FX Tuning
- Fugaku Support Site (Zendesk) FAQ Articles
- Others: specifications, system configuration, update/bug info, user guides on software provided by R-CCS, and workshop materials.

To improve the accuracy of AskDona's responses, we would greatly appreciate your feedback on the answers.



To use multiple nodes in an interactive job on the Supercomputer Fugaku, you can follow these steps:

1. **Job Submission:** Use the `pjsub` command with the `--interact` option to submit an interactive job. You need to specify the number of nodes and other resource requirements.
2. **Example Command:**

```
[_LNlogin]$ pjsub --interact -g groupname -L "node=4" -L "rscgrp=int" -L "elapsed=1:00:00" --sparam "wait-time=600"
```

- `-L "node=4"` specifies that you want to use 4 nodes.
 - `-L "rscgrp=int"` specifies the resource group for the interactive job.
 - `-L "elapsed=1:00:00"` sets the maximum job execution time to 1 hour.
 - `--sparam "wait-time=600"` sets the wait time for resource allocation to 600 seconds.
3. **Execution:** Once the job is submitted and resources are allocated, you will be connected to a compute node where you can execute your commands interactively.

For more detailed information, you can refer to the [Supercomputer Fugaku Users Guide - Use and job execution](#) (Section 5.5. Interactive job).

If you have further questions or need additional assistance, feel free to ask!

AskDona use case 2

How can I reduce memory usage in an Fujitsu MPI program?



To reduce memory usage in a Fujitsu MPI program, you can follow these strategies as outlined in the [MPI User's Guide](#):

1. **Dynamic Connection:** Utilize dynamic connection to manage memory allocation efficiently. This method secures memory for a communication partner process only at the time of the first communication, which helps in reducing unnecessary memory allocation (Page 100).
2. **Switching Modes:** Consider switching between fast communication mode and memory-saving communication mode to balance performance and memory usage (Page 101).
3. **Memory Usage Estimation and Tuning:** Use memory usage estimation formulae to predict the memory requirements of your MPI processes. This involves understanding the memory consumed by the MPI library and adjusting the number of processes accordingly. Additionally, follow memory usage tuning guidelines to optimize the memory footprint of your MPI application (Page 102).
4. **MCA Parameters:** Adjust MCA parameters such as `common_tofu_memory_limit` to limit the memory usage of the MPI library. Setting this parameter to a value greater than 1 enables memory usage restrictions, which can help in managing the memory footprint effectively (Fugaku Tuning Seminar).

For more detailed information and additional strategies, please refer to the [MPI User's Guide](#).

 Copy  Good  Bad

“Request” page

Contact form

Please select the type of request

- Use of commercial application
- Expansion of data area
- Large scale execution
- Application service provider
- Program Tuning Support or Pre-Use Technical Support by RIST
- Resolution of login failure
- Single account related
- Command setting and privilege request

(Depending on your selection, there may be additional options to choose from.)

Please fill in the requested fields and the submit bottom. (Note: If an e-mail address associated with the HPCI-ID is included in the CC, the response will be delayed due to malfunction.)

Required Request type

CC

Add emails

Required Project ID for this request

hp210032

Please select an ID

Required Subject

Required Inquiry details

Project ID for this request

Notifications and Feedback

- **Acknowledgment Notification**

- **Once your ticket is confirmed, an email will be sent automatically. The email will be signed by the Fugaku Support Staff and will include a link to the issued Zendesk support ticket.**

Subject: Support Ticket xxx :*****
From: Fugaku Support Staff <support@fugaku.zendesk.com>

We have received your inquiry with the following ticket.
Please wait a moment as our staff will contact you after confirming the contents of your inquiry.
Ticket No.xxx
You can also check the contents or contact us with additional questions from the following page.

<https://fugaku.zendesk.com/hc/requests/xxx>

Thank you for your cooperation.
Fugaku Support Staff

下記チケットにて、お客様のお問い合わせを受付いたしました。
お問い合わせ内容を確認の上、担当者より、ご連絡差し上げますので、今暫くお待ち下さい。
チケットNo.xxx
また、下記ページより、内容のご確認、または、追加ご質問をご連絡いただけます。

<https://fugaku.zendesk.com/hc/requests/xxx>

以上、よろしくお願いたします。
富岳サポートスタッフ

- **Update Notification**

- **When a support staff member responds to your ticket or provides an update, a ticket update notification email will be sent. Please check the response or update on the Fugaku Support Site by using the link provided in the email or by accessing the ticket from the "Past tickets" on the top page.**

We are pleased to provide a response to your inquiry.
Please click on the link below to check the contents.

https://fugaku.zendesk.com/hc/requests/**

お問合せいただきました件につき、ご回答を差し上げております。
下記リンク先より、内容ご確認くださいませ。

https://fugaku.zendesk.com/hc/requests/**

- **If your question or issue has been resolved, or if the requested changes have been applied, please "Mark as solved."**

