

Belle II Collaborative Services and Tools (B2CS)

Updates

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Belle II Germany (FSP) Meeting 2024 at DESY

Computing Session 2024-10-01

Contents



- Collaborative Services and Tools (B2CS)
- B2MMS Numbers & News (slides by Daniel Knittel)

Collaborative Services and Tools (B2CS)

Motivation



Why are collaborative services and tools needed?

- **Communication** is essential for any (virtual) collaboration
 - Sharing and exchanging **information**
 - **Integration** of a global virtual communities
 - **Administration** and **organization**
-
- World-wide: 1189 active members / 125 institutions / 27 countries / 4 continents (20 time zones)
 - Germany: 232 active members / 11 institutions (~20%)



Collaborative Services and Tools (B2CS) cont'd



Design

- Access with personal **credentials** (account/password) only
 - **Centrally** managed users
 - **Membership** management system
- As little as possible self-developed and self-maintained products
- Services embedded into a **existing IT infrastructure**
- Usage of **state-of-the-art** technologies
- **Specific** (web) **services** may run on virtual hosts
 - **Centrally** controlled updates and maintenance
 - Secured web services with **certificates**
 - Demilitarized zone (**DMZ**) in the network



Collaborative Services and Tools (B2CS)



Infrastructure

- DESY IT Infrastructure

- User registry (**accounts**) + **MFA**
- ZMS (**web** pages) (www.belle2.org)
- XWIKI (**wiki**)
- Sympa (**mailing lists**)
- Indico (**agenda**)
- GitLab (**repo, issues**)



- XEN-infrastructure for Belle II

- 4 x [HV (20 cores), SSD (447GiB), SAS (237GiB)]; NetApp (800GiB) (**recently renewed for 36k EUR**)
- ~35 VMs; systems (OS, cert, storage) provided and maintained by DESY (AG)
- authors, b2mms, calibration, chat, docs, evdisp, dqm, elog, mirabelle, pxd, rundb, questions, shift, software ...
- Buildbot (EL7/8/9, Ubuntu 20/22/(24)); DB squids



Collaborative Services and Tools (B2CS) cont'd



The Belle II wiki – a migration story

- In 2015 Belle II decided to install collaborative services from scratch
- During 2016 the TWIKI contents was migrated to *confluence* in a (*painful*) semi-automatic procedure
- Confluence suffered from a number of security incidents with (*painful*) service interruptions
- ATLASSIAN finally changed the support model from on-premise to cloud with enormous costs for DESY
- As a successor XWIKI was identified in 2022
- **ATLASSIAN** tools reached end-of-life (**EOL**) in Feb 2024
- The XWIKI company helped DESY IT to build and adjust a migration tools
- **Finally the Belle II confluence space (biggest in DESY) was migrated in Sep 2024**

Collaborative Services and Tools (B2CS) cont'd



Open issues

- Some collaborative tools are **outdated** (OS as well as service)
 - eLogbook (elog.belle2.org)?
 - document service (docs.belle2.org): Invenio → PubDB
 - chat (chat.belle2.org): RocketChat → Mattermost or Matrix?
- **User support** is known to be a non-scaling crucial issue
 - Not reading documentation (to the end)
 - Forgotten **passwords** (recovery procedure in place!)
 - Everybody with MFA / TOTP?
 - Unmaintained and out-dated information in the **wiki**
 - Please: **Do not ignore documentation!**

B2MMS numbers & news

Belle2 Membership Management System

Reimplemented UI since Nov 2022

Upgrade to newest Oracle APEX frontend framework

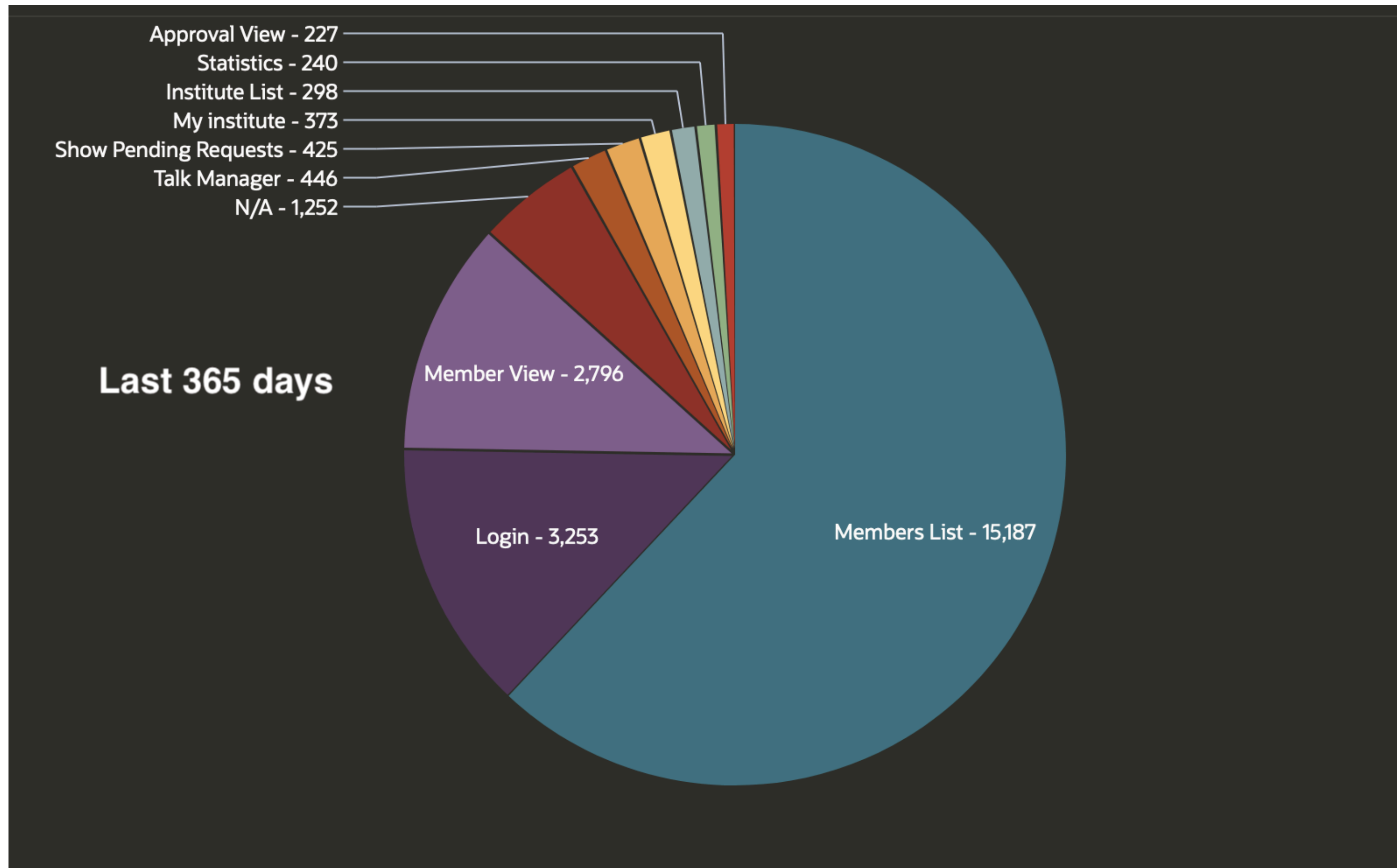
- If you still notice something missing/odd compared to the old version, please contact b2-helpdesk@belle2.org

The screenshot displays the Belle II B2MMS Members List page. The top navigation bar is blue with the Belle II logo and 'B2MMS' text. A user profile 'knittd' and links for 'Data Privacy Policy' and 'Logout' are visible. A dark sidebar on the left contains navigation items: Members List, Institution List, Pending Requests, Invite user to register, Manage Groups, and Statistics. The main content area is titled 'Members' and includes a row of buttons: 'Go to my record', 'Show my institution', 'Show IRs', 'Go to history view', 'Talks', 'Conferences', 'Alumni', and 'Refresh'. Below this is a 'Quick Search' input field with a search button. A secondary navigation bar below the search area contains buttons for 'Show my record', 'Show my institution', 'Show IRs', 'Go to history view', and 'Talks'. The main content area features a table with columns: B2id, Given Name, Family Name, Middle Name, Family Name Prefix, Email, Membership Category, Membership End Date, Phone Home Institution, Phone KEK, Membership Start Date, Belle2 Institution, IR, and Status. The table shows one row with data for a user.

B2id	Given Name	Family Name	Middle Name	Family Name Prefix	Email	Membership Category	Membership End Date	Phone Home Institution	Phone KEK	Membership Start Date	Belle2 Institution	IR	Status
00700	Yunpeng	LIU			yunli@ibem.org.cn	Technical	18 DEC 2005 00:00PM			06 SEP 2004 00:00PM	IBL/IBL China	No	Active

B2MMS page usage

Page views of most popular pages (last 365 days)







B2MMS requests

Generated requests since 2017

- total: 8069
- request_membership: 2106
- change_attribute (any): 5963

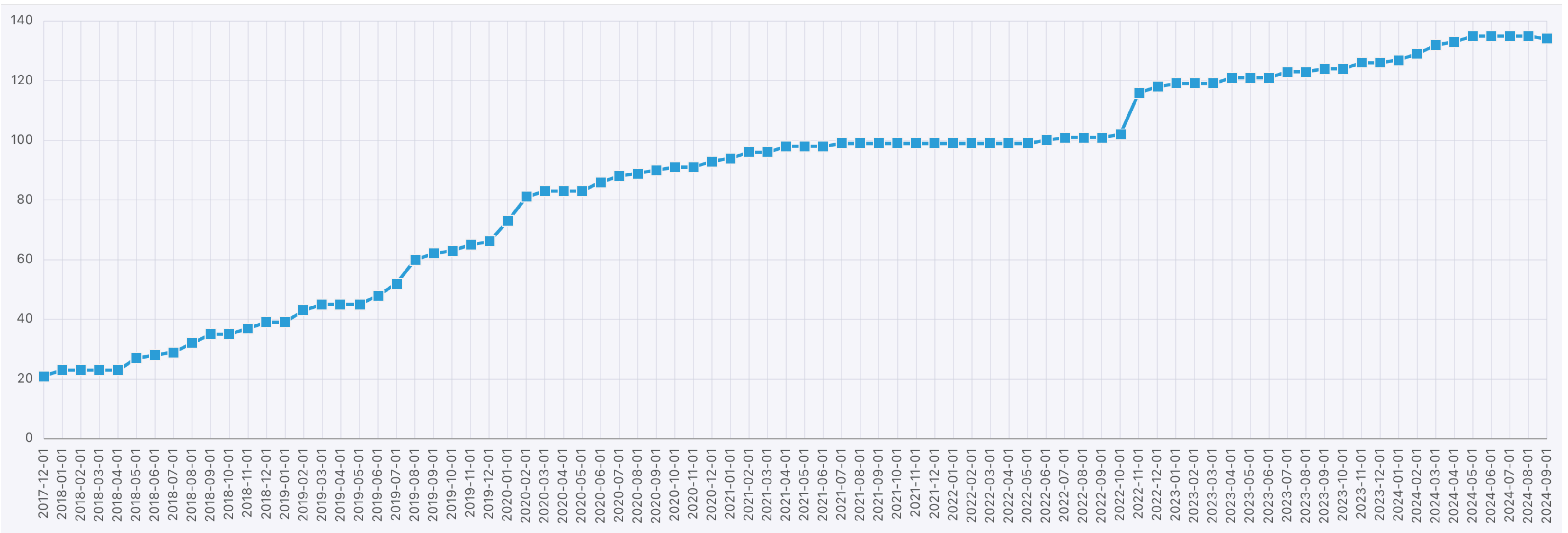
pending requests

	Role Name	Request ID	Action Name	Info
	IB_Chair	56543	change_attribute	Wants to change attribute = membership_category From = Physicist - term limited To = Physicist - faculty/staff Given Name =  Family Name =  Requesting user =  Institute = HEPHY Vienna
				Wants to change attribute = membership_category From = Physicist - faculty/staff To = Physicist - faculty/staff Wants to change attribute = membership_category

B2MMS institutions

Approx. institute growth since 2017

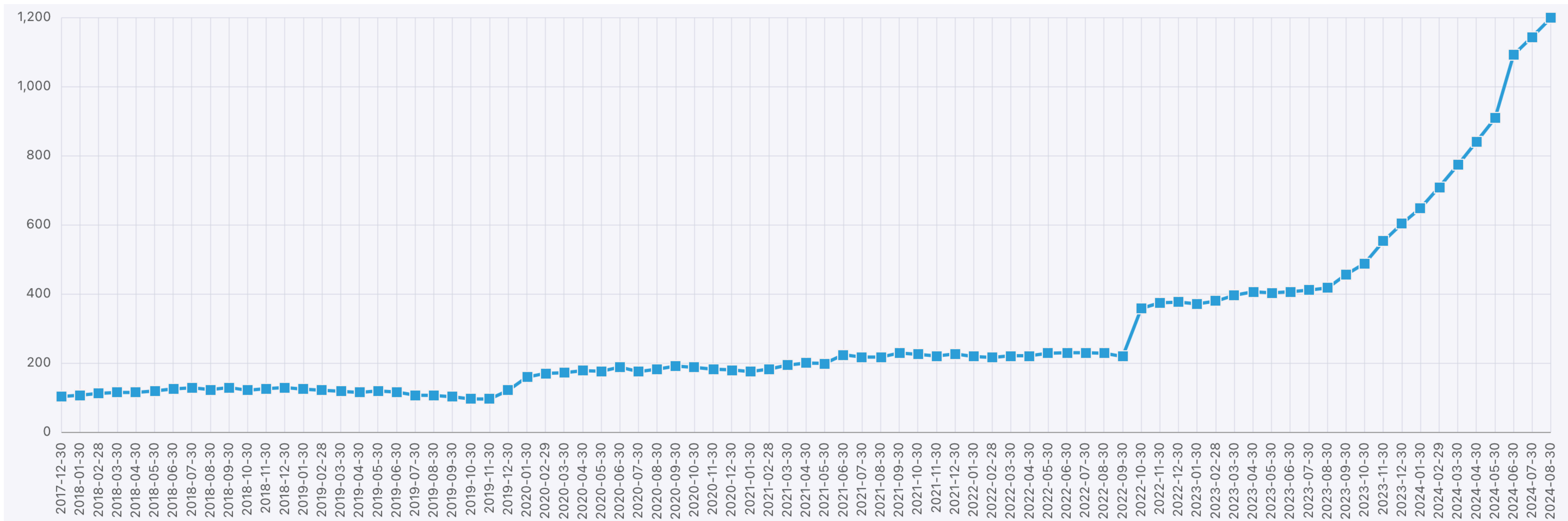
- Based on B2MMS (no tracking data available before B2MMS launch)
only institutes with at least one active member counted



B2MMS memberships

Approx. membership growth since 2017

- Only **active** memberships counted (total memb. count: 2198)




MFA @ DESY

Will be mandatory for all services at some point

- **779** out of 1211 active members **have** a MFA token
- **430** still **without** a token
 - can not use **X-Wiki** & other services with MFA
 - can not create a SSH-tunnel
 - can not use self-service password reset
 - **please spread the word**

B2MMS coming soon

Dashboard to cover expiring memberships in bulk

B2MMS

[Privacy Policy](#) [Home](#) [Logout](#)

- Members List
- Institution List
- Pending Requests
- Role Settings
- Invite user to register
- Manage Groups
- Role Settings for Users
- Institution / Affiliation Creati...
- Statistics
- Service Task Conveners
- Manage My Talk Offers

Institute: **DESY**

[Expiring Memberships](#) All my members

Search: All Text Columns Actions

Edit	Given Name	Family Name	Email	Membership End Date	Category Name	Status	Extend	Expire	Phase Out
Open	[REDACTED]	[REDACTED]	[REDACTED]@desy.de	2024-12-22	PhD student	Active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open	[REDACTED]	[REDACTED]	[REDACTED]e	2024-11-07	Physicist - term limited	Active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open	[REDACTED]	[REDACTED]	[REDACTED]er@desy.de	2024-10-25	PhD student	Active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open	[REDACTED]	[REDACTED]	[REDACTED]de	2024-11-30	PhD student	Active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open	[REDACTED]	[REDACTED]	[REDACTED].de	2024-10-28	Physicist - term limited	Phasing Out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open	[REDACTED]	[REDACTED]	[REDACTED]desy.de	2024-11-07	Physicist - term limited	Active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open	[REDACTED]	[REDACTED]	[REDACTED]de	2024-11-04	Physicist - term limited	Active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open	[REDACTED]	[REDACTED]	[REDACTED].de	2024-10-23	Physicist - term limited	Active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Thank you



Username

Thank you for listening

Password

.....

Login

[Impressum](#)



Belle II Computing at DESY

Belle II Grid Computing at DESY cont'd

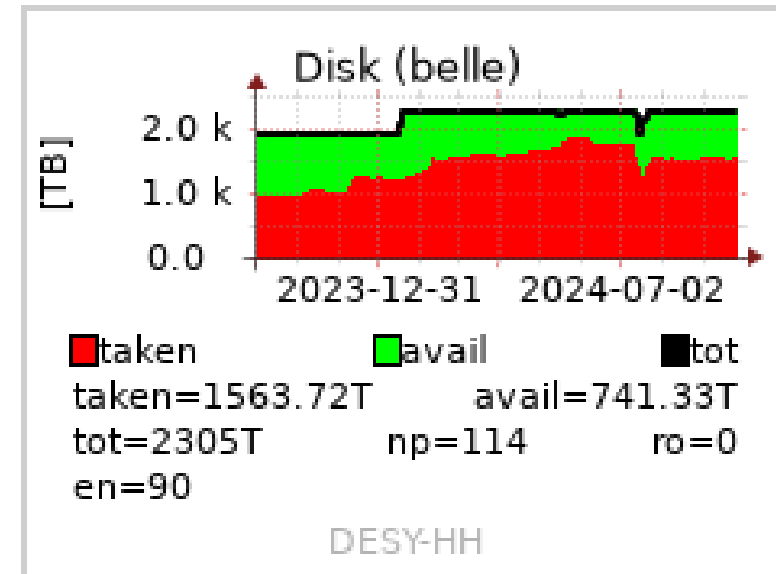


Belle II Raw Data (Grid) Center

- CPU pledges: 31.47kHS23 (Apr 2024)
- Usage: 22kHS23 (Jan-May 2024) (under-used ...)
- Contribution: ~20% of total Belle II Grid computing

- Disk installed: 2305TB (incl. RAW write pools)
- Disk pledges: 2040TB (47% of German fraction)
- Disk usage: 1564TB

- Tape usage: 173TB tape



Belle II Data Analysis at DESY



Analysis Facility

- Belle II @ NAF:
 - Users: 357 (Germany: 144 (40%))
 - Countries: 23
- Usage:
 - CPU cycles: 9kHS23
 - DUST (GPFS): 160TB
 - PNFS disk storage: 437TB
 - 39% data and MC (centrally collected)
 - 34% groups
 - 30% user files

