RCS ICT TC Topics

IT-RCS 2023-2024 Topics & Progress

Topic	Teams	Progress
Heterogeneous Architectures	**RCS**, ATS	
Scientific Data Management ecosystem	**RCS**	
Collaborative tools rationalization	**RCS**, ATS	
Evolution of the Physics Analysis Ecosystem at CERN	**RCS**, ATS	
Kubernetes and related ecosystem	ATS	
Secure evolution of the Network Isolation	ATS	
BC/DR, Enterprise Architecture, Service Level ("criticality")	**RCS**, ATS, FHR	
Support of Linux distributions	**RCS**, ATS	
AAI - Grappa/Egroup	**RCS**, ATS, FHR	

Slide taken from IT midterm progress report input: **Simone Campana as Engagement Lead**

Possible Topics for upcoming IT-RCS TCs

Support for **Machine Learning** at CERN IT - next PSO ?

- For most people this involves
  - access to single or many (specific) GPUs
  - … or access to multiple well interconnected GPUs
  - Large and fast enough shared storage space - certainly not AFS
  - Model registries, ML standard tools etc.
  - Knowledge exchange and collaboration
- How to proceed
  - Present use-cases, community wishes and realistic possibilities in IT
  - Put forward a project to propose a modern ML environment and open to the RCS community as a pilot

CERN Analysis Facility - follow-up PSO ?

- One step done pilot of "SWAN+Dask+HTCondor"

- Another step on the way RNTuple PSO

- AFS replacement is pending …
  - should not need AFS replacement now, we can drop AFS from new pilot infrastructure
    - there are good options available
- IT has expertise to commission an exemplary AF for the physics community
    - there is an exemplary infrastructure used for the RNTUPLE PSO
      - see CHEP'24

Our goal should be to make visible progress this year!

Possible Topics for upcoming IT-RCS TCs

Generative AI to improve productivity in the RCS community

- What can CERN/IT offer as a license and usage model on a short timescale
- Publicise example usage & tools in the RCS community

GMS New Grappa/Group Management

- Project Overview - Timeline - Impact
  - Community Input, Feedback, Wishlist

Authentication/Security at CERN

- Possible elements
  - The future of kerberos, tokens, keys etc.
  - 2FA usability improvements (?)
  - Authentication models in container environments
  - External access
  - Secure software repositories

Backup & Archiving for Users

- A broad spectrum of tools is in use and would profit from streamlining, best practices, and clear policies:
  - Documents
  - Emails
  - Data
  - Personal Devices, Microsoft, Google etc.

Possible Topics for upcoming IT-RCS TCs

Evolution of

- Networks
- Databases
- CERN Data Centre
- HPC
- Data Handling (Formats, Protocols, Compression)
- Data Management (FTS,Rucio)
- IT Resource Portal

- GPU, TPU, NPU Computing
- Interactive Computing
- Public Cloud Access
- CERN Campus App
- Transcription Services

…

Feedback Survey

Your feedback about IT-RCS Technical Committee Meetings

- IT-RCS Technical Committee had been introduced end of 2022 from scratch

- **We think** it is useful and productive for IT and the RCS community - boosting exchange & communication and it had a positive impact

- We would like to know **from you**

    - If / What we could do better?

    - Which topics would you like to discuss in the future?

    - Any additional feedback you might have to this engagement initiative?

If you have 5 minutes time, please fill **this very short questionnaire** for us until the next RCS Technical Committee in September!

It is anonymous, you can specify your community if you wish.

Thank you very much!

PS: we will remind you 😆