



Workshop Introduction & Goals

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US ATLAS Computing Facilities Face-to-Face Meeting at SLAC

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Welcome

- ❖ Its been a while since the "Facility" has met face-to-face
 - March 2019 there was the HOW/WLCG workshop at Jlab, but we did not have a dedicated breakout for US ATLAS
 - December 2018 at Argonne was the last Facility in-person meeting

December 2018 guidance from Kaushik and Paolo



Challenges for 2019

- ❖ LHC Long Shutdown 2 (LS2) in 2019 (and most of 2020)
 - Intense period for physics publications from Run 2
 - We need to maintain the same level of service during LS2
 - But we also need to perform much needed updates
 - And pursue R&D for the future - for Run 3 and Run 4
 - Run 3 is not much different from recently concluded Run 2 - focus will be on testing solutions for challenging Run 4
- ❖ Hardware funding will be reduced during LS2 - no new data
 - US facility planning will be important to achieve goals
- ❖ Improving collaborations - old ones and some new ones
 - Within US ATLAS, with ADC, with WLCG
 - OSG and IRIS-HEP
 - HPC centers
 - We already collaborate well within US ATLAS facility, but could do better in our collaboration with US ATLAS software



Changes for 2019

- ❖ US ATLAS S&C is organized by WBS
 - WBS 2.2 - software, we should collaborate more with them
 - WBS 2.3 - facility, this meeting
 - WBS 2.4 - new work area focussed on HL-LHC (Run 4) R&D
- ❖ WBS 2.3 has new structure and new management
 - Eric Lancon will be joined by Rob Gardner as co-manager
 - Huge responsibility (and majority of US ATLAS budget)
 - You will hear more about how WBS 2.3 is being reorganized next
- ❖ WBS 2.4 is brand new
 - Led by Heather Gray and Torre Wenaus
 - Includes both software and computing topics for HL-LHC
 - R&D for next ~5 years, not operations
 - Distinction is primarily topical, not personnel. We expect everyone in this room to contribute. Please join Hather and Torre in their challenging responsibility (see talk on Wednesday).

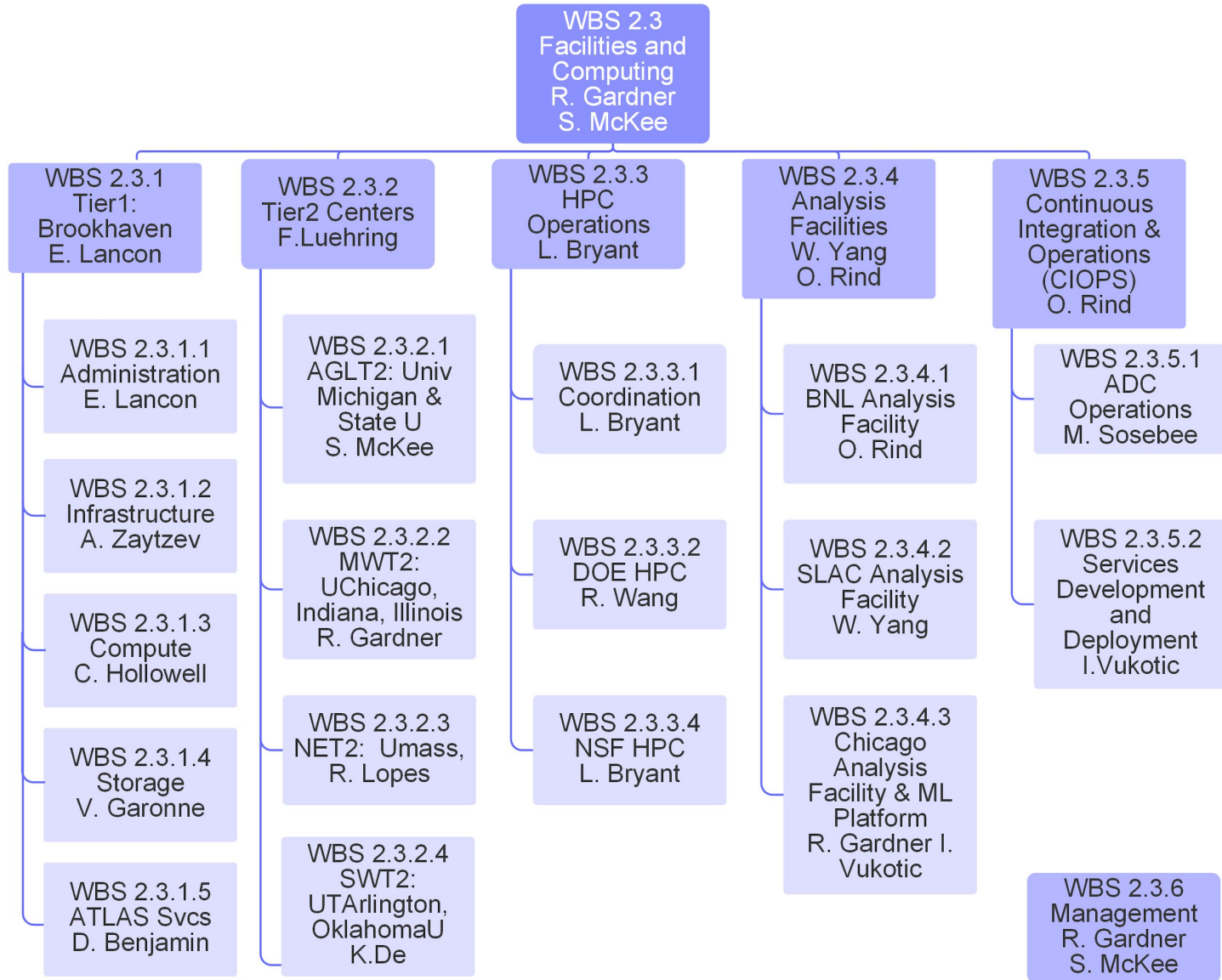


Now skip ahead to 2022!

- Meet/exceed MOU for USATLAS facilities, including targeted amounts for US Physicists
 - Rebuilding NET2 will require help from the full facility team
- Concerns about operations manpower in 2.3.5
 - What can we address here?
- Coordinated procurement and service updates
- Continue to innovate and develop needed capabilities
 - WLCG SOC - Help secure and defend US facilities against attacks by leveraging WLCG colleagues and commercial partners
 - Evolve Analysis facilities to improve physicist workflows and productivity
 - Explore tools and technologies to improve agility and consistency across the facility, amplifying limited manpower
 - Can cross-cutting activities be organized into a facility-wide R&D plan? (**Facility R&D**)
 - Demonstrated capabilities with analysis and data challenges



WBS 2.3 Organization Chart





Agenda Notes

- ❖ Day one is organized around level 3 areas
- ❖ Thursday morning we'll have a **keynote** from ATLAS S&C managers (Ale and Zach)
- ❖ Then we go into Lightning talks
 - motivation here was to highlight individual contributions across the facility
 - look for opportunities to collaborate
 - Esp. we have invited ATLAS Canada to join our meeting to share info and look for areas of mutual collaboration (e.g. analytics, k8s, ...)
- ❖ Thursday PM - parallel breakouts around key areas of NET2, Container support, K8s, and CIOPS
- ❖ Workshop dinner in the PM!
- ❖ Friday we'll have discussions on Analysis and data challenges and aligning on procurement and service updates (& OSG-LHC services, token transition, etc)



Conclusions

- ❖ We have an opportunity these two days to refine our FY23 goals and plan for the future
- ❖ L3 mgrs are responsible for identifying, articulating and implementing the vision for that area
 - Are the goals well understood and captured in milestones?
 - What are the obstacles (opportunities)?
 - How do activities at the site interface/impact/benefit the **Facility**?
 - What opportunities are there for Facility R&D?
 - Friday we've set aside time to review
- ❖ **Links**
 - Google drive for the workshop [here](#).
 - Live Notes - [here](#). We need volunteers each session.
 - Facility R&D Notes - [here](#). All invited to contribute
- ❖ **Let's have a great workshop!**



Extra slides



2.3 FY22 Milestone Summary

2.3	41	Complete deployment of T1/T2 2021 pledged resources	Apr 2021	Oct 2021	Completed
2.3.1	47	Tier 1 operations in new building	Jul 2021	Nov 2021	Completed
2.3.5	55	Kubernetes scheduling at Tier2 scale	Sep 2021	Sep 2022	Delayed
2.3.4	68	NSF shared T3 in production	Dec 2021	Nov 2021	Completed
2.3	59	Facility completes the first WLCG Data Challenge	Oct 2021	Oct 2021	Completed
2.3.1	60	Facility completes the first WLCG Tape Challenge	Oct 2021	Oct 2021	Completed
2.3	113	Complete deployment of T1/T2 2022 pledged resources	Apr 2022	Apr 2022	Completed
2.3.4	114	Jupyterhub at BNL AF opened to collaborators through federated ID	May 2022	May 2022	Completed
2.3.1	115	Decision about Ceph as primary T1 storage for FY23	Jul 2022	Jul 2022	Completed