Linux Clusters Institute:
High Performance User Support

University of Wyoming, 05/19/2017

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Goal of this Session

Before I came here I was a User Support professional. Having listened to your lecture I am still a User Support professional. But on an HPC level.

Target Audience:

IT professionals with little or no experience with supporting High Performance Computing users
Overview

• Some baseline points – define, differentiate
  • Goals? We don’ need no stinking goals...
• The User Support at the management level (big picture stuff)
  • Know your boundaries
  • How: methods and/or madness
• The User Level (one on one stuff)
  • Who are they and what do they want?
  • How: methods and/or madness
• Outreach and Education
• Challenges
What is User Support (US)?

• Provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, or via telephone or electronically.
How Does/Can HPC User Support Differ?

• Problems cover a much broader range
  • From desktops to clusters
  • More esoteric
  • Frequently very domain specific
• HPC can be collaborative
• Few opportunities for general training
  • Not really a formal set of certifications
What Do These Differences Mean for HPC User Support?

- HPC user support personnel have to be adaptable
- Greater need to relate to people from their perspective
- Often need to understand some science as well as computers
What Are The Goals of US?

• Bring users and resolutions together
• Advance research goals
• Reduce user frustration
• Minimize impact on User Support personnel
Understand the World You Live In

- Funding/Budget
- Staffing
- Political will
- Know your boundaries
- Policy

photo by Hans van de Vorst
What Sort of Organization Do You Work In?

• Inside out?
  • Rely on internal
    • strengths and capabilities
    • resources and offerings

• Outside in?
  • Customer centric
  • Requires both insight and action
  • Can you afford it?

• Can the org be both?
How?

• Methods and Madness
  • Iron Curtain: only admins have access to systems
  • Guerrilla IT

• Deep and Wide?
  • What is deep? What is wide?
  • Which is better?

• Involve the research community

• Outside-in or Inside-out?
The User Level
The User Level

• Who are they and what do they want?
  • Challenges
• How: methods and/or madness
  • Skills that matter
  • Managing expectations
  • Issue ingest
Us... Them...
Users: Who Are They and What do They Want?

- Hands off Principal Investigators (i.e., Faculty)
  - Big research picture
  - Just want to know the tools needed are available
  - Only hear from them if something big is broken
Users: Who Are They and What do They Want?

• Hands on Users (faculty, staff, students, collaborators)
  • Doing the actual work
  • Want simple, fast solutions to complex problems
  • Little tolerance for bureaucracy
  • Full spectrum from users who need copious hand holding to users who just need one word hints.
Challenges

• Regular users want instant gratification. HPC users can be worse.
  • No reading
  • No talking about it
  • Just tell me how to fix it!
• User Pride
• Ground Zero Users (power button?) vs Power Users
• Adapting to your audience
• Splash damage
Customer Support Skills that Matter

• Patience
• Communication Skills
  • Listening and Speaking
• Interpersonal Skills
• Know of What You Speak
• Positive Language
  • Never say no
• Time Management
• Follow Through
• Willingness to Learn
Managing Expectations

• Policies
• Clear timelines
• Regular and relevant updates
• Openly discuss solutions
• Transparent and honest
Issue Ingest

• Help Desk?
• Ticketing system
• Shared help email?
Conflict in Shared Environments

• Within a research group
  • PI’s handle; US can advise
• Between research groups
  • Avoid getting directly involved; advise
• Between clients and HPC support staff
  • Complicated
• Between clients and other IT support groups
  • Complicated
Conflict in Shared Environments
Education/Outreach
Education

• Web
  • Great for self-service
  • Don’t get too much advice
• Classes and Seminars
  • Target specific topics
Outreach

• Grant Writing Help
  • hardware specs, software licenses, quotes
  • letters of support
  • contribute portions of the grant
  • Take the lead on new grants for more resources
    in house with researcher input
Today’s Challenges

• BYOD
• Big Data/Data Analytics age
• Data publication and curation
• Meeting demands not addressed by conventional IT
Acknowledgements

• Previous LCI Instructors.

• Erik Scott (Harris), Jared David Baker (University of Wyoming), Pamela Hill (NCAR), Shilo Hall (NCAR), Nathan Rini (NCAR), Ben Matthews (NCAR), Jon Roberts (NCAR), Thomas Engel (NCAR), Jeffrey R. Lang (University of Wyoming), Jonathan Anderson (University Colorado, Boulder), Brian Dale Haymore (University of Utah), Leslie Ann Froeschl (University of Illinois), Irfan Elahi (NCAR), Stormy Knight (NCAR), Robert Mc Lay (TACC) for reviewing and providing feedback on the slides.

• LCI for the opportunity.
Thank you for participating!

Any Questions?

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