



Linux Clusters Institute: High Performance User Support

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Target Audience:

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

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.







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







Management







Understand the World You Live In

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

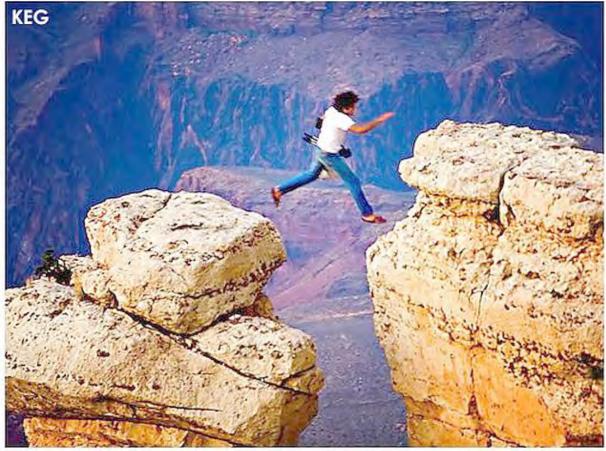


photo by Hans van de Vorst







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

- 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
 - Pl'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







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Thank you for participating!

Any Questions?

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