



UWM Data Analysis Facility

LSC General Meeting, August 2000

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History

- January - March 1998: built 48-node beowulf system for binary inspiral search project.
- Proved valuable: inspiral search code required > 100 runs to “get it right”.
- System useful for users outside UWM
 - Julien Sylvestre (MIT),
 - Matt Evans (Caltech)
 - R. Balasubramanian (Cardiff)
 - Olliver Wehrens (AEI)
- Offered a UWM MRI slot (matching funds) in December 1999 to upgrade system before LIGO-I science run. Funded by NSF: July 2000.



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MRI Development Proposal

- \$415k (NSF) + \$177k (UWM).
- Baseline design: 128 nodes, 10 Tbytes disk, mix of channel-bonded 100 Mb/s and 1 Gb/s networking.
- Part-time technician to help with assembly, routine maintenance.
- **System designed for data analysis prototyping and development work.** Will also serve as GriPhyN testbed.
- NOT a 24x7 reliable system. No staging of data from tape needed. Disk failure/data loss tolerated.
- Representative data set on disk (hours all channel data, days of reduced data, weeks of very reduced data).

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LSC Involvement

- In addition to UWM users, proposed to make system available to other LSC members. **Support 9 LSC users**, chosen 3 times/year by committee: Allen, Brady, LIGO Lab director, LSC spokesman, software coordinator
- In early January (~2 weeks before submittal) proposal sent to LIGO Lab Director and LSC Spokesman for comments
- They wrote a letter of support to the NSF
- Asked that a **committee should review final design** before purchasing/procurement phase

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Design/Procurement Plan

- Proposal contains a complete **baseline** design, with detailed costing and quotes.
- Remainder 2000: benchmark and prototype different CPU, networking and disk options. Make final design
- Early 2001: assemble small committee of experts to review final design, and make recommendations about any remaining technical questions before purchasing. Committee: LSC members, plus an experienced beowulf expert from “outside”
- Purchase orders issued: early 2001; system assembly and commissioning: spring 2001.

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