

# CELUG



Centralized Enterprise Licensing Users Group

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## **Mission Statement:**

To facilitate collaboration among companies who administer software licensing at the enterprise level, enable sharing of best practices and experiences, and partner with software publishers to improve software license management tools and processes.

CELUG has been in existence since January 2003

Web Site: [www.celug.com](http://www.celug.com)

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## **Membership:**

CELUG membership is limited to those whose responsibility is management of software assets within their companies.

In general, persons working directly for software suppliers may not become members.

The CELUG steering committee may grant membership to anyone if it is determined that such access is not in conflict with CELUG policies and goals.

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## Licensing Challenges:

### Replacement for lmstat

- Real time access to vendor daemons for license count and usage information. This will allow the ability to tie job slot and license together (only dispatch when both are available). Also allows the ability to effectively utilize the license resources.

### Minimum release standard

- Flag to detail what FLEXnet options are enabled

### Enable ultimate denials

- Step through license denials until the true denial is reached, then report that denial

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## Licensing Challenges:

### Linger license problem

- Request for force remove option with the `lmremove` command

### `lmreread` inconsistencies

- Need to run `lmdown` and then `lmgrd` to enable license file updates

### Provide best practice documentation

- License server hardware scalability recommendations
- LAN/WAN
- Triad
- File descriptors

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## Licensing Futures:

- Dynamic rehosting
- Utility pricing
- Pricing per socket, not per core
- Ability to suspend, preempt and resume resource
- Checkpointing running tool and relocate to different resource

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## EDA infrastructure challenges from an industry perspective:

Global Computing

Follow-The-Sun Computing

Large Network Pipes (Bandwidth)

Un-tethered Access Into Job Status & Results

Grid Storage (HPFS)

- Distributed Filesystem
- Clustered
- Storage Switches

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## EDA infrastructure challenges from an industry perspective:

### Dense computing

- High-density blade racks
- Power and cooling issues

### EDA Grids

- Break up individual jobs and run in parallel across a grid of computers

### Data Grids

- Move large amounts of data around the globe (pre-staging, caching)

### License Grids

- Dynamically move licenses around the globe based on need

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## EDA infrastructure challenges from an industry perspective:

### Engineering IT partnering with ISV's

- Licensing roadmaps
- O/S roadmaps
- Tool dependencies
- DRM integration

### Processor manufactures are moving to multi core per socket

- Tools are predominately single threaded

### Open Standards

- LSB adoption
- DRAMAA

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## Conclusion

- **Continuous improvement in license management tools**
- **Alignment of EDA licensing with grid challenges**
- **Adoption of open standards**
- **Partnering for a unified voice**

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The background is a solid teal color. In the center, there is a faint, semi-transparent image of two hands shaking, symbolizing agreement or partnership. The hands are rendered in a lighter shade of teal, creating a subtle watermark effect.

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