

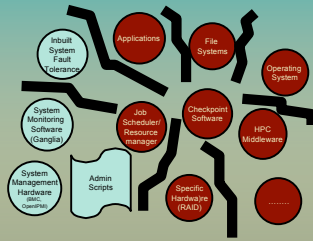
# Coordinated Infrastructure for Fault Tolerant Systems

Argonne National Laboratory  
Lawrence Berkeley National Laboratory  
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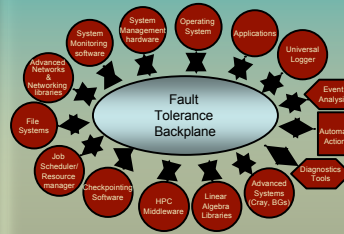
Indiana State University  
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## Traditional Fault Tolerance

- Traditional Fault Tolerance is handled by individual components
- Little or no fault-related information sharing takes place between different components
- The effort of understanding how different faults impact different system software lies on the user
- Lack of fault coordination limits proactive handling of faults on a system-wide basis

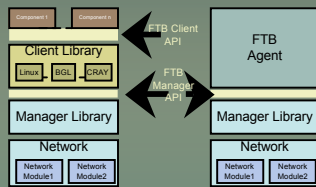


## The CIFTS Initiative



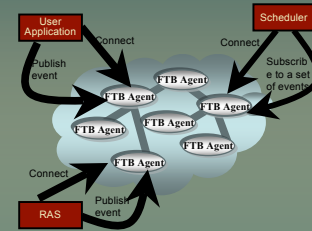
## The Fault Tolerance Backplane Architecture

### FTB Layered Architecture

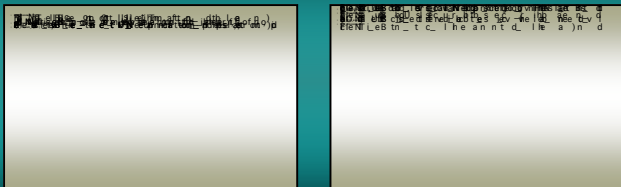


- The CIFTS framework is based on a distributed messaging layer (called Fault Tolerance Backplane [FTB]) and software that communicates using this messaging layer
- The FTB framework provides a *publish-subscribe* framework and a FTB Client API
  - System software talk to FTB using the FTB Client API
- Internally the FTB consists of distributed architecture of FTB Agents, which handle book-keeping and hide the transport-level details.

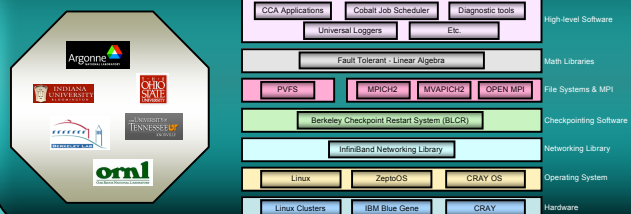
### FTB and Component Interaction



## FTB Client API



## CIFTS Planned Goals



## How you can get involved!

