External Forecasts and Predictions (EFPs)
Data Transfer Mechanisms
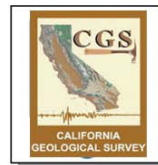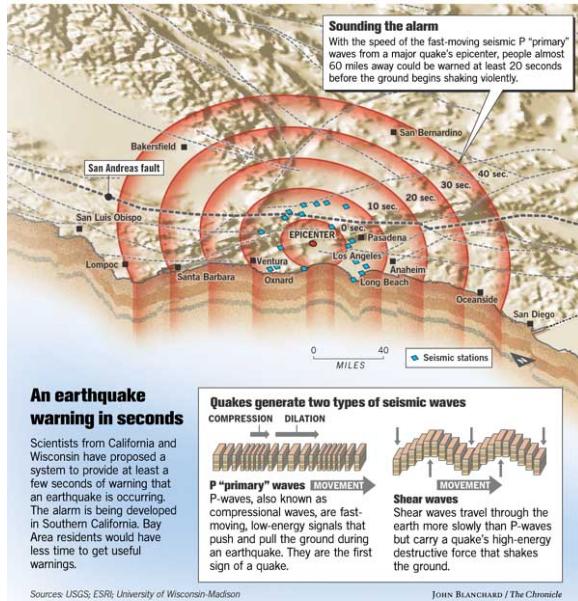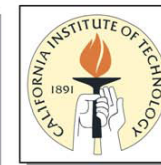

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SCEC: An NSF + USGS Research Center

External Forecasts and Predictions (EFP) Data Transfers

- Best data transfer mechanisms will depend on computing infrastructure available for both sides and may depend on needed security.

- Linux is standard at CSEP, but computing environment at forecast providers is unknown and likely to vary.

- Selected mechanism must work with providers computing environment.

- Solutions can be characterized as push, pull, publish, subscribe, poll. Both forecaster and testing center will define how they collect inputs and perform their processing.

- There are few enough contributors it may be possible to develop custom solutions for each case.

External Forecasts and Predictions (EFP)
Data Transfers

Scripting Transfer:

Available on must linux computers:

- Remote copy – rcp
- Secure copy - scp:
- Secure ftp - sftp:

External Forecasts and Predictions (EFP)
Data Transfers

Data transfer packages:

Available on hpcc systems. May have stronger security capabilities than more common tools.

- gridftp
- Bbcp
- Globus online

External Forecasts and Predictions (EFP)
Data Transfers

Reliable transfer tools including message oriented middleware.

Commercial and open-source alternatives. Typically same software runs on both systems, senders and receivers.

- TIBCO message oriented middleware
- Antelope ORB
- Rabbit MQ
- Data turbine

External Forecasts and Predictions (EFP)
Data Transfers

USGS Data Tools

Open-source. Integrate into USGS systems more easily.

- USGS Product Distribution Layer (PDL)
- Quake Data Distribution Systems (QDDS)
- Earthquake Information Distribution System (EIDS)

End