2000 cars, 2 years, 1 petabyte

And other things

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SHRP2 Sites

- Seattle, WA
- Buffalo, NY
- Bloomington, IN
- State College, PA
- Durham, NC
- Tampa, FL
SHRP2 NDS

• 2000 cars, 3000 drivers
• 6 sites
• 2 years
• 1PB
  – 85% video
  – 15% instrumentation, etc
Data flow

• Ingested onsite
• Sent over Internet2 to VT
  – Requirement >200Mbps
  – Could have been less
  – Sometimes over 800Mbps
SHRP2 Data Gathering

• Real time health check
• Automatic crash reports
• Bulk data are harvested every few months
• Total 1-2TB/day
• Sites send data from regional center via Internet2
Site issues

• 5 of 6 no problem
  – The 1 isn’t who you’d think it would be
• IPSec helped with firewall in two places
  – TCP1433...
• 2 at least occasionally did IPv6
• sftp replaced by rsync
At this scale lots of things can happen
This can’t happen

• If you can’t rely on your file system...
The car that moved across the state

• Repoman...