The Antarctic Internet Data Distribution (Antarctic-IDD) System & You: Workshop, Demonstration, & Discussion

Your Hosts:
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- Taylor Norton
- Dave Mikolajczyk
Outline

• Why LDM?
  • Utility, Value, etc.

• How it works…(the Matt Lazzara version)

• (Installation – show and tell only)

• Configuration
  • ldmd.conf
  • pqact.conf
  • ldmadmin watch – see the full stream…..

• Data
  • Inserting
  • Requesting

• (Capabilities – discussion only)
• Community Contributions
• Network Design
Why LDM?

Sending:
- Contribute to AMRDC 😊
- Getting your data product to product end-users
- Opportunity to use the actual data elements…

Receiving:
- Data quantization
- Throttle to smaller volume
- “Instant” availability
- Post processing/filing upon arrival
How it works…

• Based on remote procedure call or RPC technology
  • (so not really new…)

• Communications over a reserved transmission control protocol or TCP port 388
  • (can make alternations if you wish…some consequences)

• Does NOT push data to you….you request!

• This is a “branch and leaf” type of distribution system…
(Installation....Show and Tell only)

• su - ldm
• gunzip -c ldm-6.13.13.tar.gz | pax -r '-s::/src:/'
• rm ldm-6.13.13.tar.gz # optional
• cd ldm-6.13.13/src
• export PATH=... # if necessary
• ./configure [--enable-logging=localn] [--localstatedir=volatile_dir] [--disable-max-size] [--with-noaaport] [--with-gribinsert] [CC=...] [CFLAGS=...] >configure.log 2>&1
• Password: ...
• make install >make.log 2>&1
• make clean # optional

• https://www.unidata.ucar.edu/software/ldm/ldm-current/basics/source-install-steps.html
ldmd.conf

pqact.conf

ldmadmin watch output
Data transfer example...

• Data
  • Inserting (Taylor – frozen.ssec.wisc.edu)
  • Requesting (Matthew – stearns.ssec.wisc.edu)
### Community Contributions...??

<table>
<thead>
<tr>
<th>Ohio State/BPCRC</th>
<th>NCAR</th>
<th>AMRDC</th>
<th>Anyone else??</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Polar WRF ?</td>
<td>• AMPS/MPAS ?</td>
<td>• PCI Fog Product</td>
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<td></td>
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<td>• Other satellite products</td>
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</tbody>
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Antarctic-IDD
Network Design - Possibilities

Key:
- Two-way, full data stream
- One-way transmissions
- Limited two-way data stream

AMRDC/Wisconsin
NOAA (GTS)
Washington, DC
BAS
UK
BPCRC/OSU
AWI
Germany
NIWC
Charleston

CSBF/LDB
ASC
NIWA
New Zealand
UCAR/Unidata
CU
NIWC
& AMRC
McMurdo Station
At Williams Field
Thank you!!

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