CommerceNet

- Goals
  - > 1000 members by the end of this year
    - > initially mainly in Silicon Valley
  - > Millions of members worldwide in five years
- Expect to revolutionize way business is performed
  - > Small businesses able to compete on equal-terms
  - > Global competition
  - > Elimination of vertically structured companies?

Technical Innovations

...and their impact on HEP

- HTML+
  - Will add tables - badly needed for documentation
  - Also figures with wrap around text, captions
- Beyond HTML+
  - General SGML acceptance with DTD
  - Style sheets
  - Commercially supported layout languages?
    - Adobe Acrobat - PDF
    - Object Oriented document formats - OpenDOC
- Security - Encryption and Authentication
  - Opens WWW to wider use
    - Publications in preparation
    - Control applications
- Editors
  - Currently tkWWW, NeXT browser only editors
  - Many translators exist
    - Frame to HTML
    - Word To HTML
  - Need High Quality browser-editor

Technical Innovations

continued...

- Forms, Interactive documents
  - HTML+ style forms are already in wide-spread use
  - Likely to become more powerful in future
  - WWW as easy-to-use client-server GUI
    - Could build entire control. monitoring system using WWW
  - Wide range of interactive features not possible with paper documents still to be explored
    - Collapsible lists
    - Interactive documents
- Integration of Collaborative, Multimedia Tools
- Indexing the Web
  - Many indexes already available
    - Virtual libraries - entirely manual
    - Mother-of-all bulletin boards - forms based input
    - w3catalog - my personal favorite
    - Jump Station
    - ALIWEB - Archie Like Indexing of web
  - Better, more complete indexing coming
- Commercialization
  - More, Better tools

Lessons for HEP

from WWW usage

- HEP is missing great opportunity to advertise its goals and achievements to a large audience (including high school students, undergraduates etc.)
  - > Should organize non-technical (semi-technical?) descriptions of
    - > HEP as a whole
    - > Individual experiments, including purpose and summary of results
    - > major facilities, laboratories, plans for future
  - > Although we originated WWW we have been overtaken in this area by many others (c.f. NIST)
- Need some HEP-wide organization of directories covering
    - > Experiments
    - > Publications
    - > Laboratories and Universities
  - > Better to have one to two well done directories than many incomplete directories
  - > Directories no good unless they are correct, maintained, easy to identify those responsible (c.f. NASA)
  - > No shortage of work to be done - need some way to distribute load around labs.

Lessons for HEP

from WWW collaboration

- WWW as a model for HEP computing collaboration?
  - > Large spontaneous collaboration of people world-wide have made WWW what it is today
    - > Almost no face-to-face meetings
    - > real discussion of issues over www-talk mailing list
    - > real decisions made as result of discussions*
- What has made this collaboration possible?
  - > Open discussion of issues prior to decisions, implementation
  - > Modular design with well defined protocols
    - > Easy for people to take a small part of the project and work with it
  - > Dependence on standards where appropriate
    - > SGML, MIME
  - > Welcoming to outside involvement
  - > always been a list of jobs in progress, to-be-done at CERN

* often frighteningly fast!!!

Conclusions

- Future of Web is in commercial world
- Still plenty of scope for HEP to expand its use of WWW
  - > for collaboration
  - > for reference material, on-line conferences
  - > pre-prints, published papers
  - > as a quick and flexible GUI tool
  - > for informing public about HEP

Final thought...

- Internet culture is full of young, incredibly enthusiastic people, who realize what they are doing is really having an effect
- We need to make HEP computing more open to change...