

Internet2 Industry Strategy Council Meeting Minutes

Tuesday, October 26, 2004

1:00PM – 3:00PM EDT

Participants: Dick Liebhaber, Dan Atkins, Gary Augustson, Andrew Dugan (in for Jack Waters), Steve Hall, Brian McFadden,

Internet2 Participants: Jill Arnold, Gary Bachula, Laurie Burns, Ann Doyle, John Kennedy, Ken Klingenstein, Cheryl Munn-Fremon, Barb Nanzig, Rick Summerhill, Doug Van Houweling, Ellen Vaughan

AGENDA

- I. Introductions and Welcome (Doug Van Houweling)
- II. Digital Piracy Concerns and Issues (Jill Arnold, Doug Van Houweling)
- III. Content Protection Legislation (Gary Bachula, Doug Van Houweling)
- IV. i2hub and Abilene (Rick Summerhill)
- V. Digital Media Directions (Russ Hobby, Ken Klingenstein)
- VI. Directions/ Issues/ Next Steps (All)

Introductions and Welcome (Doug Van Houweling)

Doug welcomed the ISC and announced that Dick Liebhaber would join the meeting late due to a scheduling conflict.

Matters Arising

Dan Atkins requested ISC suggestions on key points to include in a conversation on Cyberinfrastructure planned with Arden Bement, recently nominated as the Director of the National Science Foundation.

Jill referenced the recent distribution of general background materials and asked ISC members to send her questions.

The nominations process for the Internet2 Board of Trustee and Councils is approaching. Council members were asked to consider and suggest individuals that should be considered for the slate.

Additional topic focused teleconferences will be planned. Please send topics to Dick Liebhaber or Jill Arnold. A face-to-face meeting will be held in the spring.

Digital Piracy Concerns and Issues (Doug Van Houweling, Jill Arnold)

Jill reviewed the agenda for the meeting and its focus on digital media. The intention is to provide an update on issues and concerns related to digital piracy and Internet2's continued interest in working proactively to enable legal mechanisms for content distribution. Doug asked the ISC for their input on the direction for the community and

ways to work collaboratively. Documents related to this agenda were sent in advance of the meeting.

Content Protection Legislation (Gary Bachula)

Gary shared that Congress is increasingly active in efforts to regulate the Internet. Traffic on Internet2 was referenced in a recent Congressional hearing on piracy and higher education that pertained to piracy. Congress passed spam legislation and legislation on spyware is in process. Many bills have been introduced that would alter the Digital Millennium Act of 1998. There is debate and lobbying from many directions. There is a threat of congressional action and recent discussions have created a very negative image for Internet2. Gary stressed the importance for Internet2 to have vigorous interaction with the content community.

i2hub and Abilene (Doug Van Houweling, Rick Summerhill)

Doug updated the ISC on i2hub, a file-swapping environment targeted toward college students, and Rick summarized the i2hub technical environment. The organization and its activities are a concern to the media industry, particularly the MPAA. Internet2 has had discussions with the MPAA, as the i2Hub has clearly targeted individuals served by the Internet2 backbone. While the file swapping environment is interesting from a research point of view, some of it is illegal. We have effectively removed all mention of Internet2 from the i2hub materials. Unfortunately, many people confuse i2hub with Internet2. i2hub utilizes software that is freely available. The situation is complicated for Internet2. Our network connectors are also connected to the commodity Internet. The i2hub servers are on the commodity Internet and they use internal access lists that selectively restrict prefixes. The transaction occurs on the commodity Internet but the actual files may travel over Internet2. It is very difficult for us to actually determine what traffic is using i2hub. This is a typical point-to-point software situation but it is complicated by the network combination.

Digital Media Directions (Russ Hobby, Ken Klingenstein)

Russ Hobby and Ken Klingenstein provided an update on current content distribution projects and outlined areas of possible work for the community. At the April ISC meeting, the group discussed a wide variety of applications generating digital content. This included high performance scientific, scholarly, cultural content as well as leading edge mass-market applications such as web, video, presence. The project to test performance and different delivery architectures underway with Movielink, USC, UC Davis, NCSC, and Northwestern is still in the planning phase. Warner Brothers is still exploring possible uses of Internet2 infrastructure for trials of new technologies. Napster is developing a project plan for delivery of content to campuses. Microsoft and Red Hat are experimenting with new models of software distribution. Many efforts continue in providing content to support academic needs. There are opportunities here to understand new business models that will evolve with technology.

The goal is to define and implement an infrastructure that will provide the base for a wide variety of content delivery applications. It will be built on existing architectures, formats,

and protocols that can be adopted or developed to create an efficient, easy to use environment for the end user and provider.

A lot of individual efforts are being done on parts of the overall content delivery area, from both the R&E and industry sides. Many of the basic goals are the same. We need to bring these efforts together in a common framework to provide the system picture, glue them together, and identify new areas of work that should be started. This work could encompass work at the network and storage layer, access control and digital rights management, client issues, and models for business/marketplace.

Internet2 plans to have similar discussions with the other Internet2 councils and is considering having a workshop to develop an initiative plan.

Discussion (All)

Doug encouraged council member input on our direction and on how best to engage industry in the process. Key elements of the discussion included:

- The emergence of peer-to-peer is dramatic. The whole industry needs to come to terms with this new way of networking. Digital rights management going forward will be fundamental.
- There is interest in moving to a trusted model. Security of the network itself is key.
- The academic community should consider actively embracing alternatives such as the creative commons.
- Internet2 is unique because of membership combination and is a good forum to think about protection and inventing legal and economically sustainable IP.
- Getting involved in digital rights will be fundamental going forward.
- Will be important to carefully consider which companies to engage in a digital rights effort and under what terms in order to achieve the right mix of interests.
- Digital rights management will be a fundamental part of networking going forward. The impact of digital rights on network performance needs to be a part of the learning.
- Need to focus on technical issues other than just DRM.
- Important to engage content delivery players such as Akamai.
- Our company is focused on delivering digital learning to campuses; plan to package for any DRM; plan to be delivery structure agnostic. Of interest is a business model that combines materials in a way that allows authors and content producers to run their business and that is delivery structure agnostic.
- Digital Rights Management is key. Solutions need to be crafted that are viable and attractive.
- Should Internet2 be concerned about the time line differences between campus and corporate? Cannot have a perfect time frame world. It is important to get started. The market will evolve with whatever gets produced.
- Engage Washington in a proactive manner so that Internet2 becomes viewed as a part of the solution.
- There is a connection between what we are talking about today and cyberinfrastructure. There is a tension between openness of knowledge pursued

and privacy. Internet2 is a very unique consortium because of academic and industry involvement and a forum to think about protection and inventing legal, economic, sustainable IP a la creative commons.

Doug summarized the conversation and identified areas that he thinks are important moving forward. Involvement of industry members and having commercial alliances will be a key to the success. We will make alliances with those that want to be a part of the process. This will include the MPAA , media companies, and universities. Internet2 will need to find a way to stay focused on activities that reduce principle to practice and credit working models instead of debating policy for rights management.

Next Steps

- Jill Arnold will contact ISC members unable to participate in this meeting in order to get their input on this topic.
- All council members are invited to provide feedback on the single topic teleconference format and on the discussion during this and the previous meeting.

Activities in Process

- Cyberinfrastructure electronic discussion to develop a message and arguments that can be used for common speaking points (Gary Bachula)
- Development of a proposal for an industry – academic project on Real-Time Communications. (Jill Arnold, Ken Klingenstein)