00:33:45 Taro Tsuchiya: [IMPORTANT NOTICE]
This event will be recorded and uploaded to the CCRC website, and other relevant pages later. If you do not want to be shown up in the video, please turn off your camera and microphone. If you have any questions, please ask questions in Q&A session that comes after the panel discussion! Thank you very much for your cooperation.
Taro (organizer)

00:44:09 Chuck Brownstein: The program that funded this was in the Math Division   CISE began in the mid '80s

00:50:31 Andy Lippman: Mokapetris is too modest.   What he experienced at the MIT Architecture Machine was what he invented

00:51:30 Andy Lippman: In those days there was always a was between hardware and software. Programmers wanted us hdwr people to solve it all.

00:59:03 Gordon Peterson: minor typo: It was Illiac IV

01:08:05 中村 修: What kinds of application did you thinking at that time ?

01:12:57 Tom Boettcher: By my generation of students at U of D, names like Farber, Landweber, Mockapetris and Rowe were already rather revered --- my father worked with timesharing systems at Boeing Computer Services -- but I have always been curious --- what ever could pry all of you away from sunny California and back to the east coast?   How did you choose your paths post-DCS work at Irvine?   a general curiosity question...

01:13:22 Karl Auerbach: At our work at SDC Frank Heinrich and I were intrigued about using distributed systems as a means to achieve secure systems.

01:13:27 Andy Lippman: wHy wasn't the simple answer that multiple asynchronous tasks would be efficient and reliable?

01:15:13 Andy Lippman: Series 1 was a beautiful machine totally misunderstood by IBM…

01:18:57 Gordon Peterson: Datapoint's ARC System (LAN) was first installed in Sept 1977 at Chase Manhattan in NYC in their International Money Transfer department... and announced publicly at our

stockholder meeting on Dec 1, 1977

01:27:26 Karl Auerbach: Wasn't DCS using potentially a multicast addressing system, or could be modified so that names had some sort of wildcard?   The reason that I ask is that these days I am using MQTT, a pub/sub message protocol that let's me multicast things like a bid-for-resource and get back several prospective service bindings.

01:28:49 Larry Rowe: Karl, yes we did have both broadcast and multicast because the RI could match/copy every message that went by.

01:30:53 Glenn Ricart: arcnet (datapoint) was invented by Harry Pyle; I

01:31:35 Karl Auerbach: I have long been fascinated by the "bid for resource" mechanism (with its "price quote" and "binding contract" notions).   That is very much part of lots of stuff that is happening these days in cloud computing.

01:32:58 Gordon Peterson: Harry Pyle did the original concept;   John Murphy did the actual production firmware for the RIM and Gary Asbell designed the microsequencer for the RIM that John Murphy's firmware ran on

01:35:16 Karl Auerbach: Did you ever think about partition and re-join scenarios in which a ring splits into separate rings and then later rejoins?

01:36:22 Gordon Peterson: (RIM = Resource Interface Module, the LAN node interface... originally it was FRIL (Fast Resource Intercommunication Link))

01:36:56 Gordon Peterson: ARCnet splits and rejoins the LAN automatically by the RIMs, without requiring host processor attention

01:39:37 Gordon Peterson: It's hard to migrate code across heterogeneous processors....!!

01:40:30 Karl Auerbach: In our security work at SDC, we were working for people who thought of computers being vaporized.   So we were really interested in figuring out how to create identification/authentication services that could "just exist somewhere". and be reached by a kind of secure group addressing system.

01:43:51 Gordon Peterson: fault recovery can be a real problem.... in the ARC System we set it up so ALL network transactions could be repeated if there was any question about their success;   but still a problem

for "broadcast" messages

01:44:10 Larry Rowe: Karl, we did discuss reliability issues, like what happens if a single machine fails (like a power failure), and we discussed what happened if the ring was cut but we did not have any good ideas what to do. I never recall discussing what happens if you have a node on two or more rings.

01:47:39 Karl Auerbach: @paul m - The DCS work had enormous influence in our working area - secure OS and networks. But we were working under layers of classifications and paranoia, so what we learned from you didn't go much further than our own work.

01:50:02 Garth Hermanson: My entire career was built on the DCS underpinnings you developed. From virtual reality networked games to highly secure Cloud computing architecture. Thank you!!!

01:50:07 Mark Laubach: Thank you all.

01:50:08 Gordon Peterson: Thanks, y'all! Very interesting!