WORKSHOP
Data Network for Academic and Research Institutions in Ukraine (UARDN)
and Connection to Western European Networks

Kiev , NTUU-KPI,
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Report to the NATO HQ

compiled by

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Idea of the Workshop

NATO workshop was concentrated on the problems **Ukrainian** Universities and research institutions have in the field of national wide telecommunications.

Topic of the discussions and presentations : „Perspectives and plan to create a Data Networks for the academic (Universities) and research institutions in Ukraine (UARDN) and connection to the west European networks"

Aims of the NATO-workshop were :
1. to determine today's stage of telecommunications and computer networking infrastructure and activities in the Ukraine's major universities and research institutions.
2. to define main problems of further development of this infrastructure.
3. make recommendations to the Ukrainian authorities about the possible ways of further development of such an infrastructure in Ukraine.
4. open the way for Pilot NATO-projects in the field of telecommunication in Ukraine.

Also there has to be mentioned another important aspect - Such a Workshop gave an excellent opportunity for the Ukrainian side to get together all actors in the field of data networking for the academic and research community in Ukraine with their western partners and to find common ways of solving common problems in order to achieve actual co-ordination of such efforts in Ukraine on the state level.

Preparation of the Workshop

Preparations to the workshop have been started in January 1997 in RWTH - Aachen by Co-ordinator of the workshop Prof. Dr. Haupt.(see Appendix III). Just from the beginning of the preparation of the Workshop Prof. Dr. Johannes Erger -Head of the office „EU programme für Ukraine" in RWTH and Dr. Mikhail Leshchenko - Director of the Computer Telecommunication Centre of NTUU-KPI have been involved and played an active and important role. A lot of consultations were done with representatives of various German and European organisations (DFN - Mr. Ullmann , DESY - Mr. Frese , University of Oslo - Mr. Nordhagen, NATO HQ - Dr. de Wispelaere and others).

Ukrainian side was involved from the very beginning of the preparations. Due to our common efforts the situation in Ukraine in the field of telecommunications was investigated (for example - INFO Collection „Computer Networking in Ukraine with respect to the Ukraine's Universities and Research Institutions" approx. 300 pages was prepared) and plan of actions was defined. Results of such an investigation were presented during an International Workshop „Computer networking and services of distributed systems" Mengerskirchen-Probbach (Germany) 23.02-27.02.1997. Ukrainian participants have had a good chance to learn experience in the field of WAN from other countries, also from the East Europe.
There were a lot of discussions both in Ukraine and in west Europe aiming UARDN. On this basis „Agenda" and „List of participants" were defined.

In NTUU-KPI a local organisational committee under the supervision of the Minister of Education of Ukraine was organised. In spite of the luck of experience within Ukraines' Universities and research institutions in organising of such a workshops on the Networking topic, NATO Workshop was organised as a very important forum for Ukraine.

Remarks to the Workshop's Agenda and Presentations

Actual Agenda of the workshop is available in Appendix I.

VIP (Minister of Education and a President of the Academy of Sciences of Ukraine and other) emphasised their wish to take part in the Workshop. But it was not so easy for them to arrange time for the attendance long before the beginning of the Workshop. That is why the actual version of agenda (Actual Agenda, 28.04.97) differs a little bit from the final version (V9, 17.04.1997) which was send to all participants before the beginning of the Workshop.

One example of national research network , its' organisational and technical aspects was given in the presentation of Mr. Ullmann and Dr. Rauschenbach (DFN - Deutsches Forschungsnetz)."The German political, organisational and technical way of establishing the National Research Network (WiN)" .

The situation of campus networks at main Universities and other research institutions in Ukraine was presented in very interesting and highly qualified presentations by their representatives from 6 regions of Ukraine. In spite of financial and economical problems in Ukraine Universities and research institutions are still active in the field of data communications.
Universities and research institutions have understood the importance of Data networks for education, research and development They have gathered a lot of experience and keep qualified personnel and should play a role of the basis for UARDN.. They are really a strong force which should be used in the process of planning, construction and maintenance of UARDN. Their representatives should form the kernel of all initiative groups, co-ordinating bodies, committees etc. to be established in Ukraine in order to set up UARDN. Such a conclusion was done by the western experts during the workshop.

The draft of the model for UARDN was presented. Organisational and technical questions were discussed.

After the official closing of the workshop an Internal discussion of Western European experts was held. Main topics :
- "Pilot projects aimed on achievement of UARDN to be supported by NATO and other organisations".
- "Sources for financing of creation of UARDN, Possible Contributors"

Participants of the Workshop

Full list of main participants of the Workshop is available in Appendix II.

Ukrainian side was widely presented :
- Geographically - There were participants of all major regions of Ukraine
- Institutionally - Two ministries (EDU and PTT), National Academy of Sciences and National Agency for information of President of Ukraine and 16 Universities and research institutions.

As a very important feature of the workshop, which has to be mentioned, the active participation of both wings of academic and research community of Ukraine: Universities and research institutions themselves from one hand and administrative bodies on the other.

Universities and research institutions showed their strong will to play and active role in the process of creation and then in maintenance and further development of UARDN.   They have already build Campus Networks or are in the stage of set upping them and got a practical experience in solving of a complicated managerial and technical problems.

Involvement of the PTT-Ministry of Ukraine in the discussions concerning UARDN during NATO Workshop was not so active as we have expected and as it is necessary for UARDN. It has to be mentioned here that active participation of PTT-Ministry in UARDN activity would be appreciated as an important feature for the successful planning, installation and maintenance of UARDN Network.

Western participants represent NATO HQ, European networking organisations - DANTE, DFN and academic and research institutions - RWTH, DESY, Forschungsgelende Garching. Their presentations, experience and participation in discussions was of vital importance and very helpful for the work of the NATO workshop and determination of the model of UARDN and Plan of actions.

Results of the Workshop

Long term aim of this activity in Ukraine is - UARDN - well equipped and well organised. Both meaning are important: managerial and technological aspects. NATO Workshop was an important step towards achievement of UARDN.

Main results of NATO-workshop:
1. Call for attention of Ukrainian high administrative authorities to the field of Data networks for Ukrainian universities and research.
2. Participants have agreed to join their efforts aiming UARDN in order to establish actual co-ordination of networking activity within the academic and research community on the national level.
3. Draft of the model for UARDN was discussed.
4. In order to create and maintain UARDN a Co-ordination body should be created on the national level.
5. Importance of real administrative and financial support of Ukrainian government as well as support of the western partners was underlined.
6. List of pilot projects suggested for NATO sponsoring was discussed.

Two documents were signed at the end of the workshop:
- draft of the „Model of the project introduction "Establishment of the National Communication network of the educational and scientific institutions with access to Internet (UARDN)" (signed by the Minister of education Prof. Mikhail Zgurovskij and a president of Academy of sciences of Ukraine Prof. Boris Paton and representatives of Universities and research institutions)
- DECISIONS of the Workshop. (singed by Chairman of the Workshop Prof. Haupt and Co-chairman Prof. Yakimenko)

DECISIONS of the workshop:
1. Organisational structure of UARDN should be created in the form of independent Association of Universities and Research institutes, based on the democratic principals of membership and a state support of different Ministries and State Agencies of Ukraine.

2. Call for attention of our western partners to support our activity with a Pilot Projects.

3. In order to start our work in the field of creation of UARDN - to create a working group in order to prepare a
   plan of actions for the nearest future (June 1997).

Short term Plan of actions to implement results of the Workshop.
To be recommended to Ukraine side.

1. UARDN working group should be created (June). Three basic principals should be used while creating such a group:
   - Representation of top state administration (Ministries etc.) in order to get support of the government of Ukraine and achieve national wide co-ordination of these activities.
   - Wide representation of Universities and research institution from all regions of Ukraine in order to make co-ordination closer to the users, bring qualification and practical experience in it.
   - Representation of western experts-advisors-supervisors is also important for this group.
2. Basic information concerning UARDN should be collected by working group (July-August).
   - Legislative, financial and organisational basis for UARDN-organisation (Models, results of previous negotiations with Ukrainian top administrative authorities, etc.)
   - What institutions in what regions of Ukraine should be connected to the UARDN Backbone at the first step (1997-1998), second step. Who are potential users of UARDN (numbers, figures, maps with their dislocation , etc.)
   - Technological aspects of the Backbone (available links, bandwidth at the start and perspectives). Choice of the partners - links providers (PTT Ministry etc.) to set up Backbone. Previous negotiations. Maps of links in Ukraine available for UARDN, Pricing.
   - Last mile problem - Connections of users to the backbone in regions.
   - External link problem -Connections to Internet via DFN, DANTE etc.
3. Workshop of the working group with broad participation of western experts (July, August)
   - General discussion of collected information
   - Corrections to the model of UARDN and UARDN-organisation
   - Detailed technical and managerial aspects of the First Step of setting up UARDN.
   - Preparation of the draft proposal for pilot project to be sponsored by NATO.
4. Preparation of the proposal for the Pilot project to be sponsored by NATO. (August)
   - Technical specifications
   - Budget calculations
   - Contracts with providers, suppliers etc.
   - Formation of the structure for UARDN-organisation
5. Application for the NATO Grant.(up to the 1 of September 1997)