

URAN - 2000

Strategy for the Users

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URAN Meeting with new Users

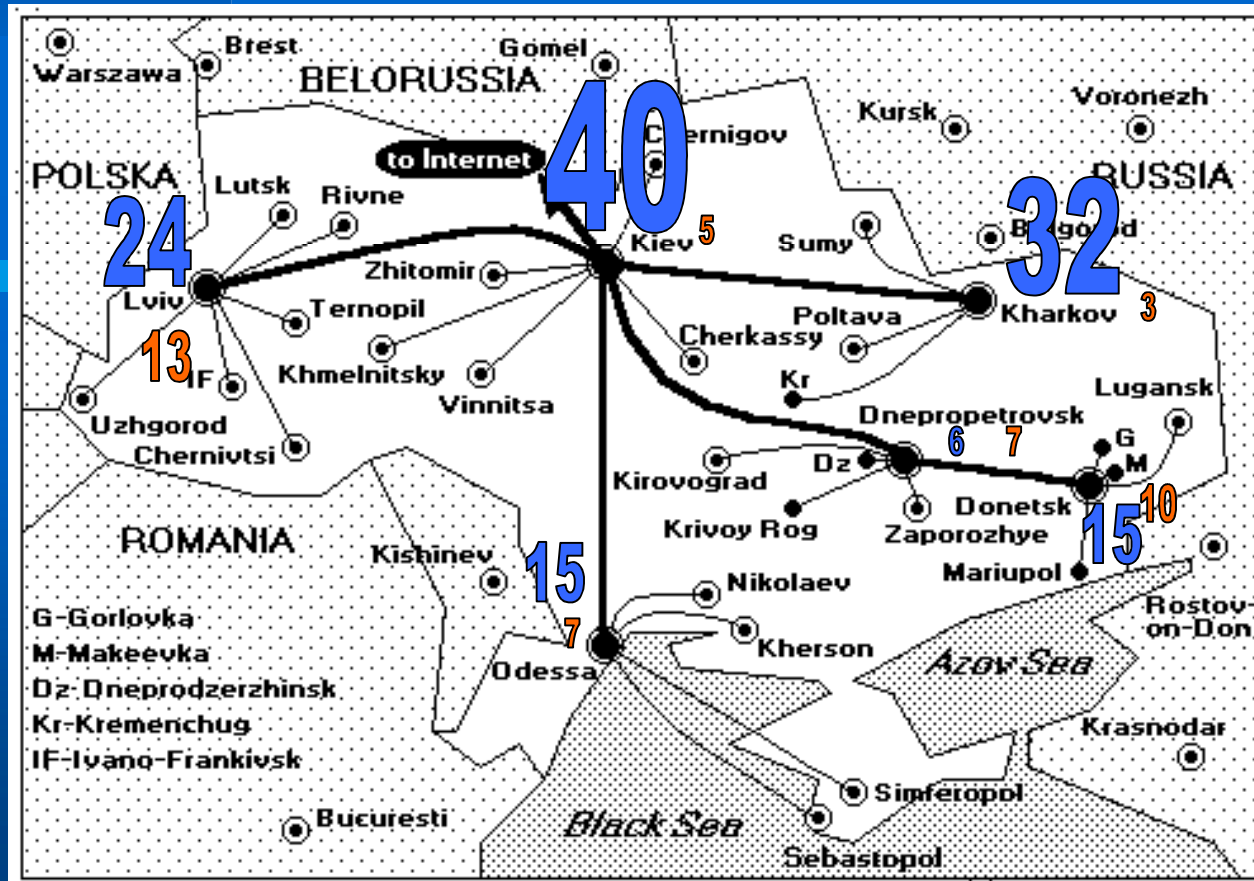
Kiev, 10.12.1999

<http://www.uran.net.ua>

Ambitious Plans

132 - Users in the Cities

45 - in Regions



URAN Phase I, Steps 1, 2

Feb. 98 - Sept. 99

- Central Node and NOC in Kiev
- RC in Lviv, Kharkiv, Dnipropetrovsk and **Odessa**
- INTERNET Connection via IP-Provider Ukr-Telecom
- Simple IP-services

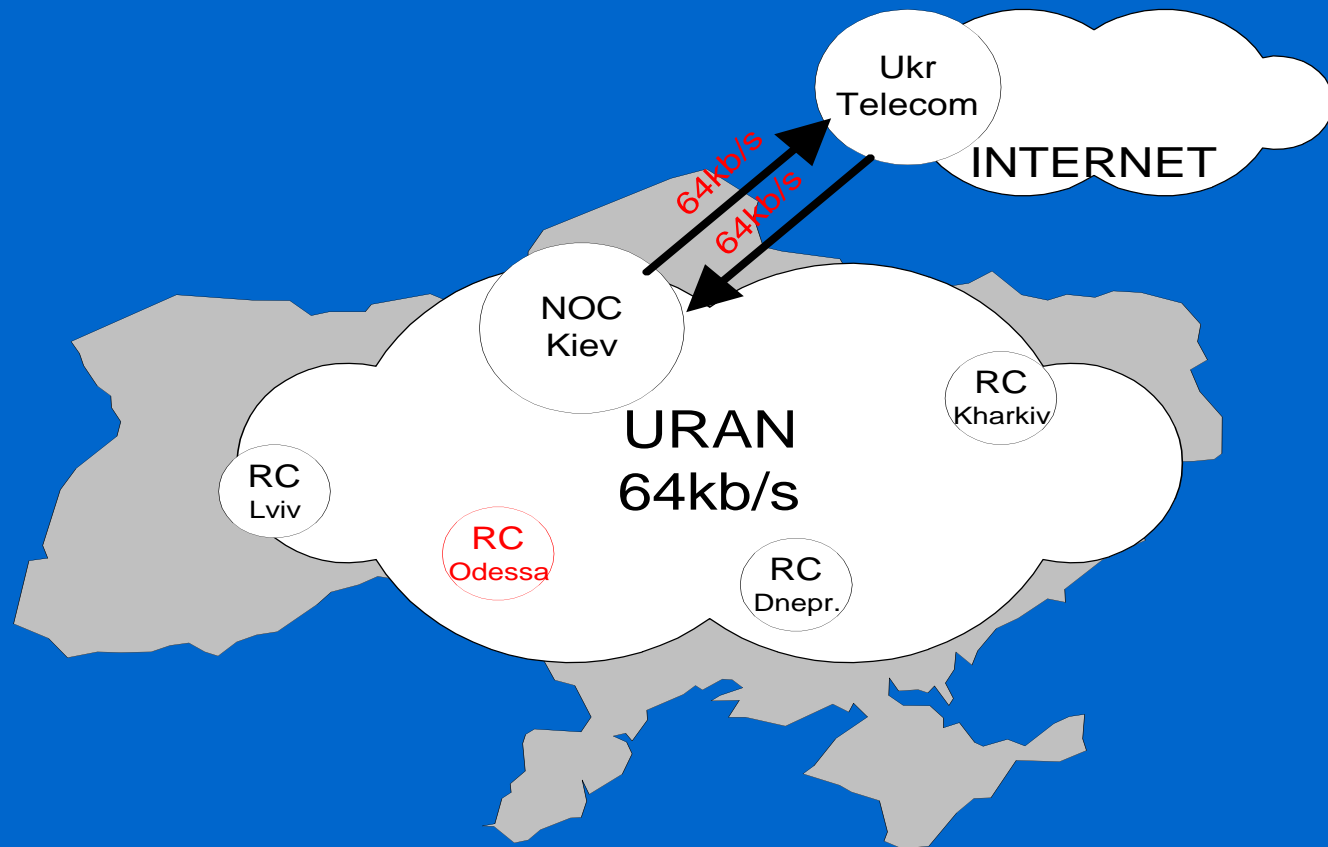
URAN Phase I, Steps 1, 2

Feb. 98 - Sept. 99

	NATO NIG	URAN	Ukraine state
Infrastructure	139'000\$	~250'000\$	
Channels			
- installation	3'706\$	10'000\$	
- fees	7'315\$	4'396\$	50%

URAN Phase I, Steps 1, 2

Sept. 99



URAN Phase I, Steps 1, 2

Sept. 99

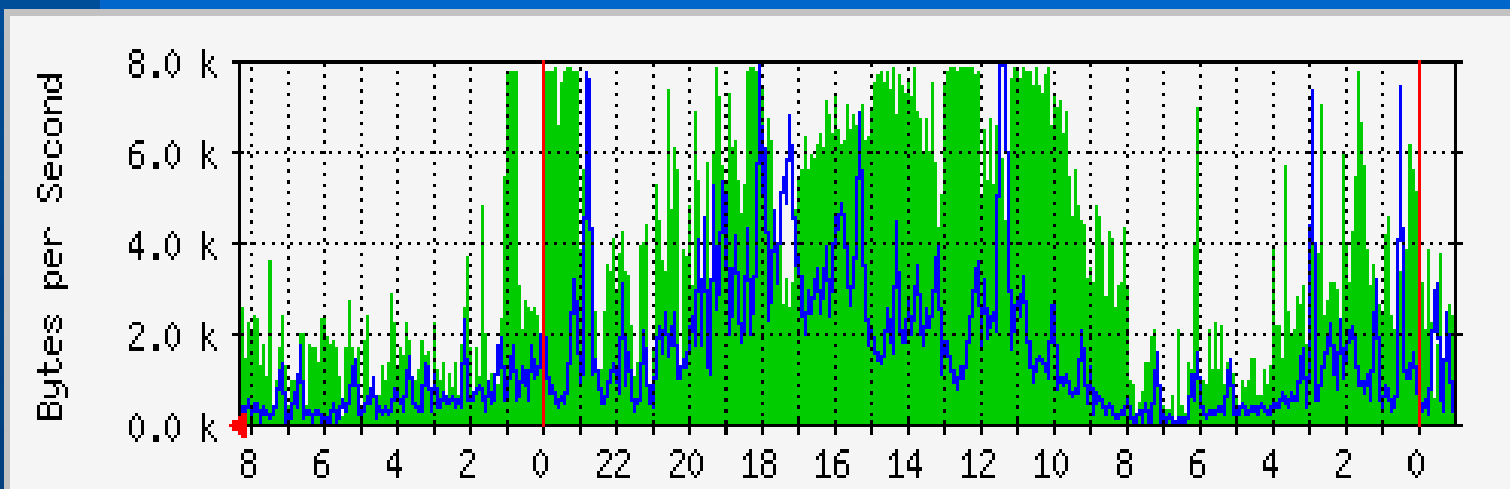
(64K synchronous to ukrstel.net)

- **Daily (340MB/130MB)**

- Average In:
3938.0 B/s (49.2%)
- Average Out:
1526.0 B/s (19.1%)

- **Monthly**

- Average In:
3950.0 B/s (49.4%)
- Average Out:
1140.0 B/s (14.2%)



URAN Phase I, Steps 3, 4

Sept. 99 - Jan.2000

- RC in **Odessa** and Donetsk
- Upgrade of the connection to the **INTERNET**
- Broadening of the Backbone - New Users/RCs

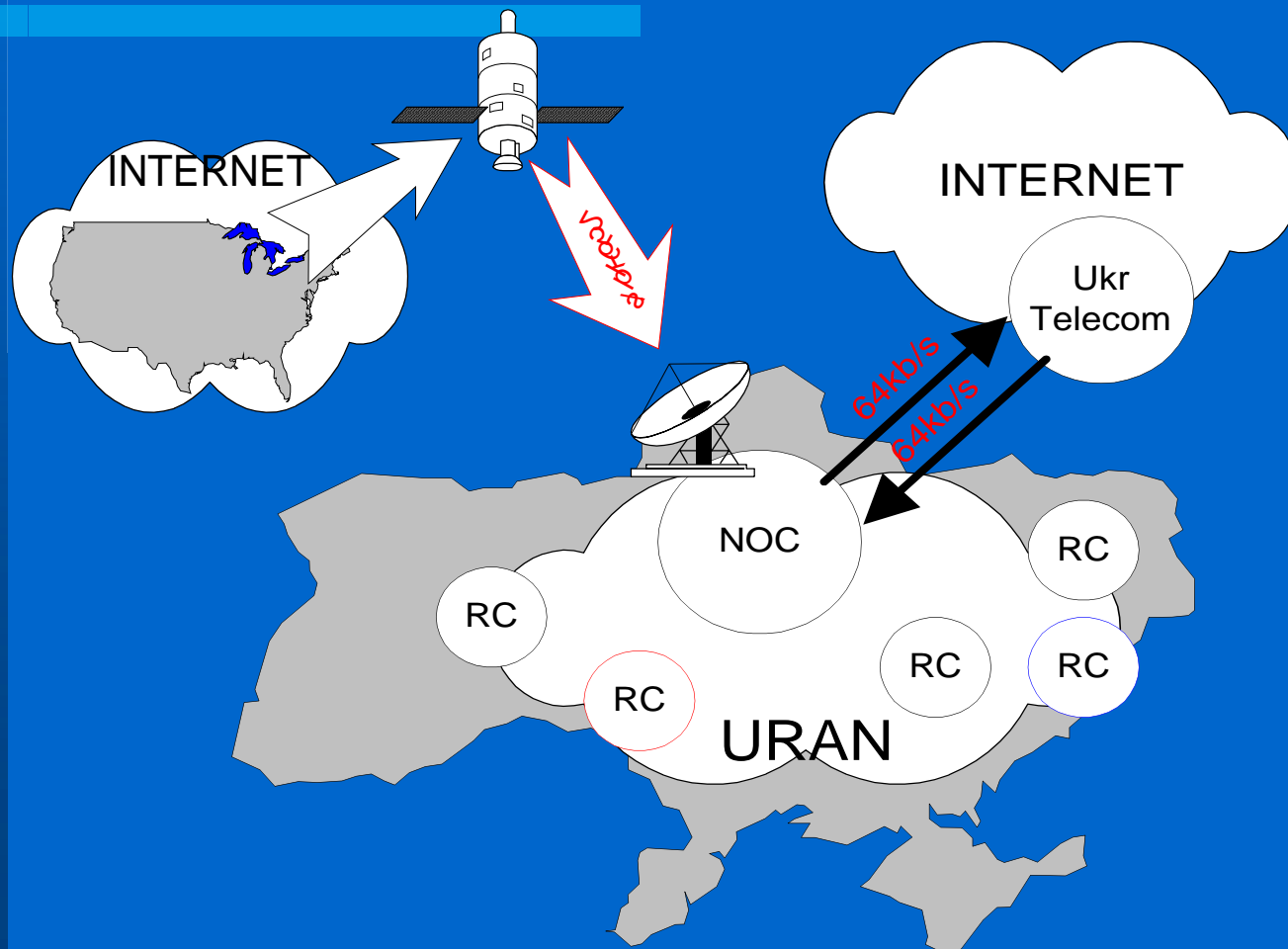
URAN Phase I, Steps 3, 4

Sept. 99 - Jan.2000

	NATO NIG	URAN	Ukraine state
Infrastructure	55'000\$	~40'000\$	
Channels			
- installation	20'000\$?	
- fees	25'000\$	7'143\$	50%

URAN Phase I, Steps 3, 4

Nov. 1999



Kiev, 10.12.1999

URAN Phase I, Steps 3, 4

Dec. 99

- UkrTel. 64kb/s

Daily (30%)

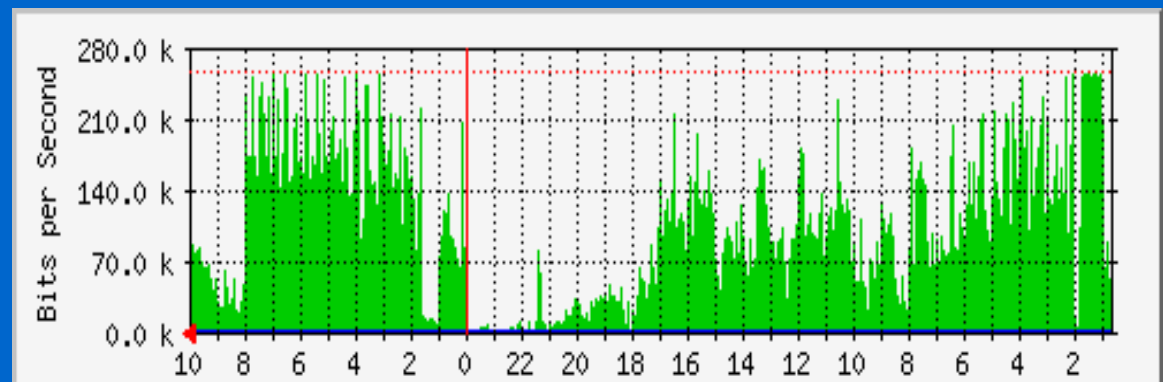
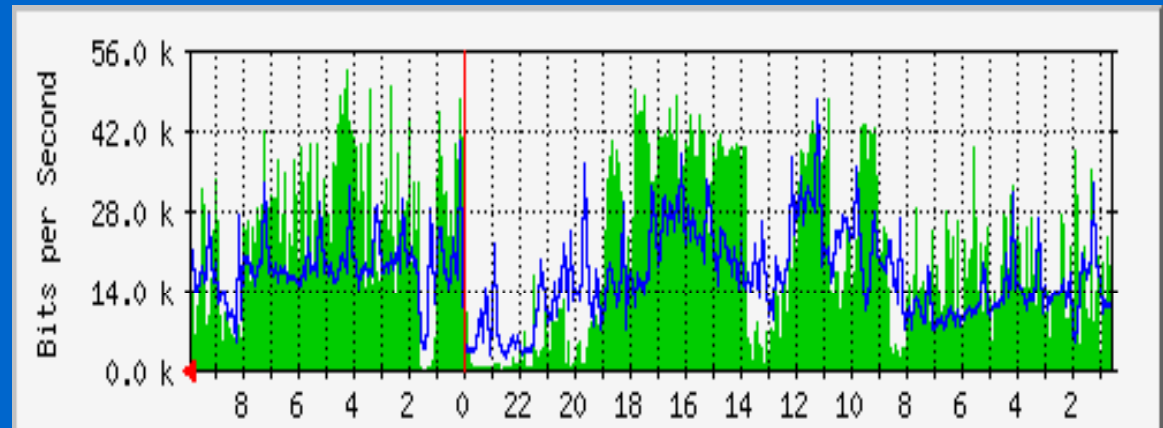
IN 240MB

OUT 180MB

- Sat.Link 256kb/s

Daily (40%)

IN 1.2GB



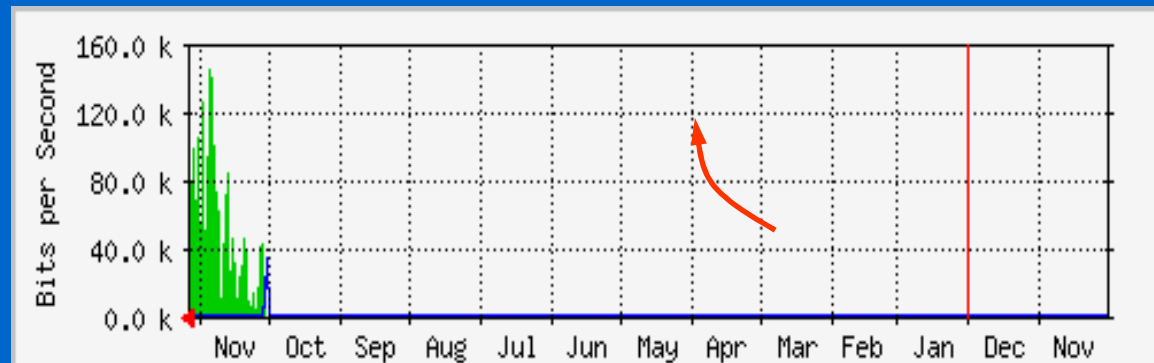
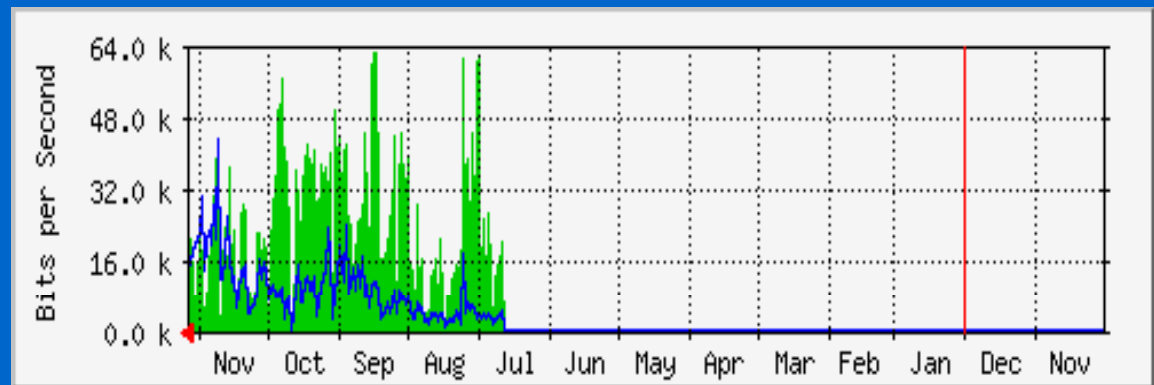
URAN Phase I, Steps 3, 4

Dec. 99

Main INTERNET Link
is symmetrical now!
IN/OUT = 1.3:1

Sat. link
Growing demand

URAN Total
In/Out = 7.5 : 1



URAN Phase I, Steps 3, 4

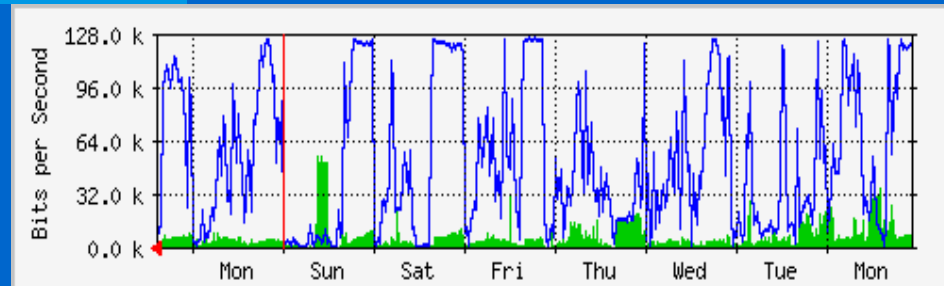
Dec. 99

Examples of RC/Users

KPI, Kiev 128kb/s

Daily In - Out

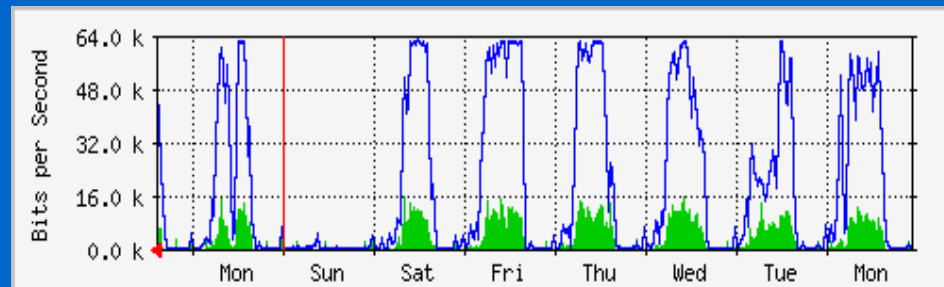
670MB (48%) - 54MB (4%)



RC Kharkiv 64kb/s

Daily In/Out

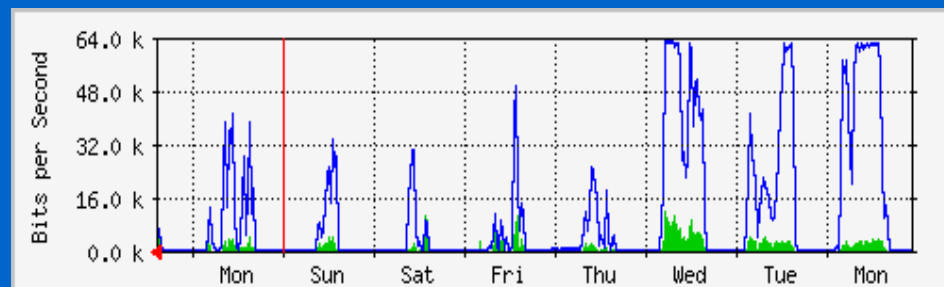
216MB(30%) - 37MB(5%)



RC Dnipropetrovsk 64kb/s

Daily In - Out

118MB(17%) - 15MB(2%)

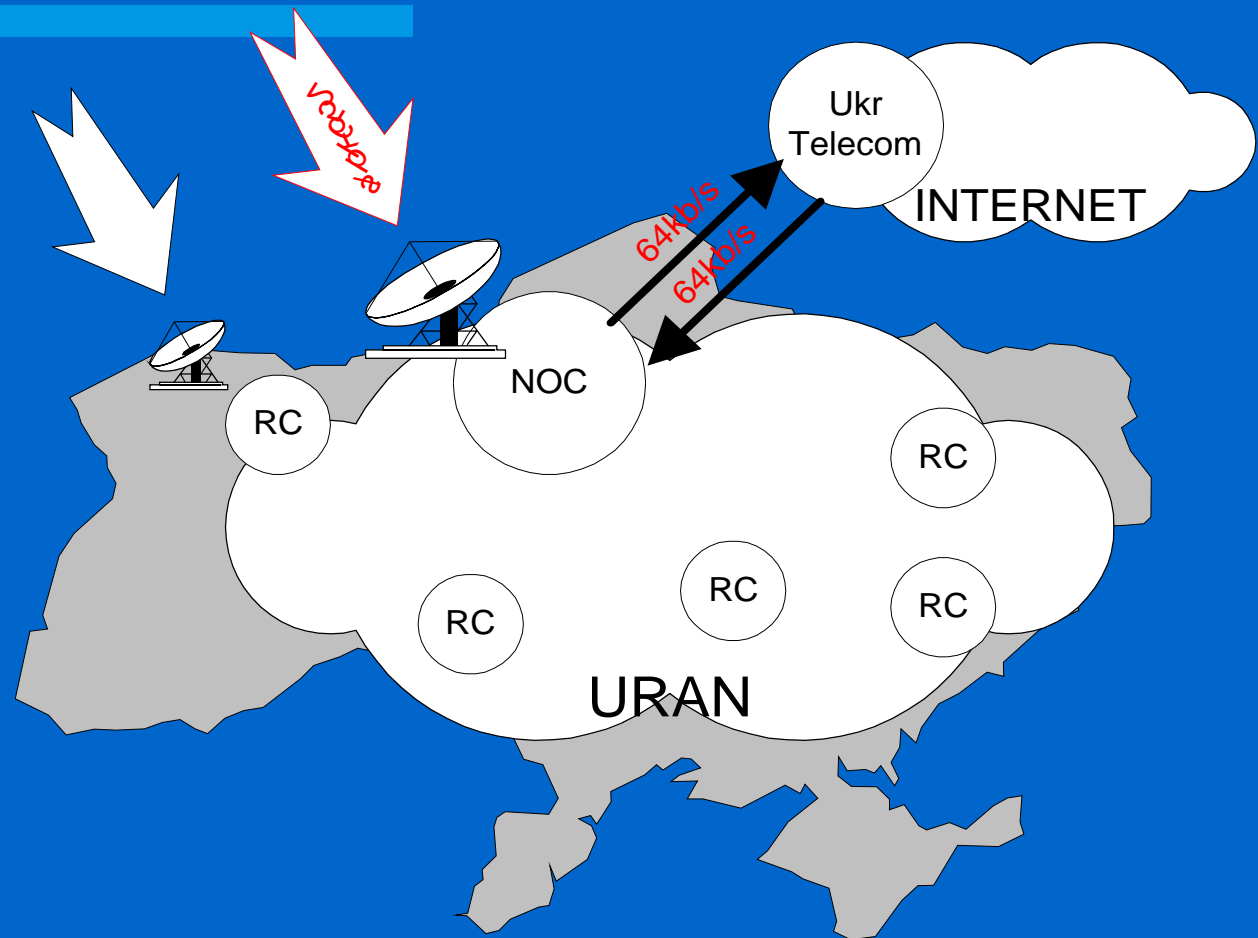


Kiev, 10.12.1999

URAN Phase I, Steps 3, 4

Jan. 2000

URAN Capacity
enough for
13 ...15
“64kb/s”-Users



Kiev, 10.12.1999

URAN Phase I

“Starting the Network”

Results

Basic infrastructure was build:

- 64kb/s - Backbone with RC in 6 (4 in Dec.) Regions of Ukraine
- INTERNET connectivity was achieved.

Today's capacity of URAN is enough to connect 13-15 “64kb/s”users. Really connected in Dec.99 - 6.

URAN Phase II.

“Fight for USERS”

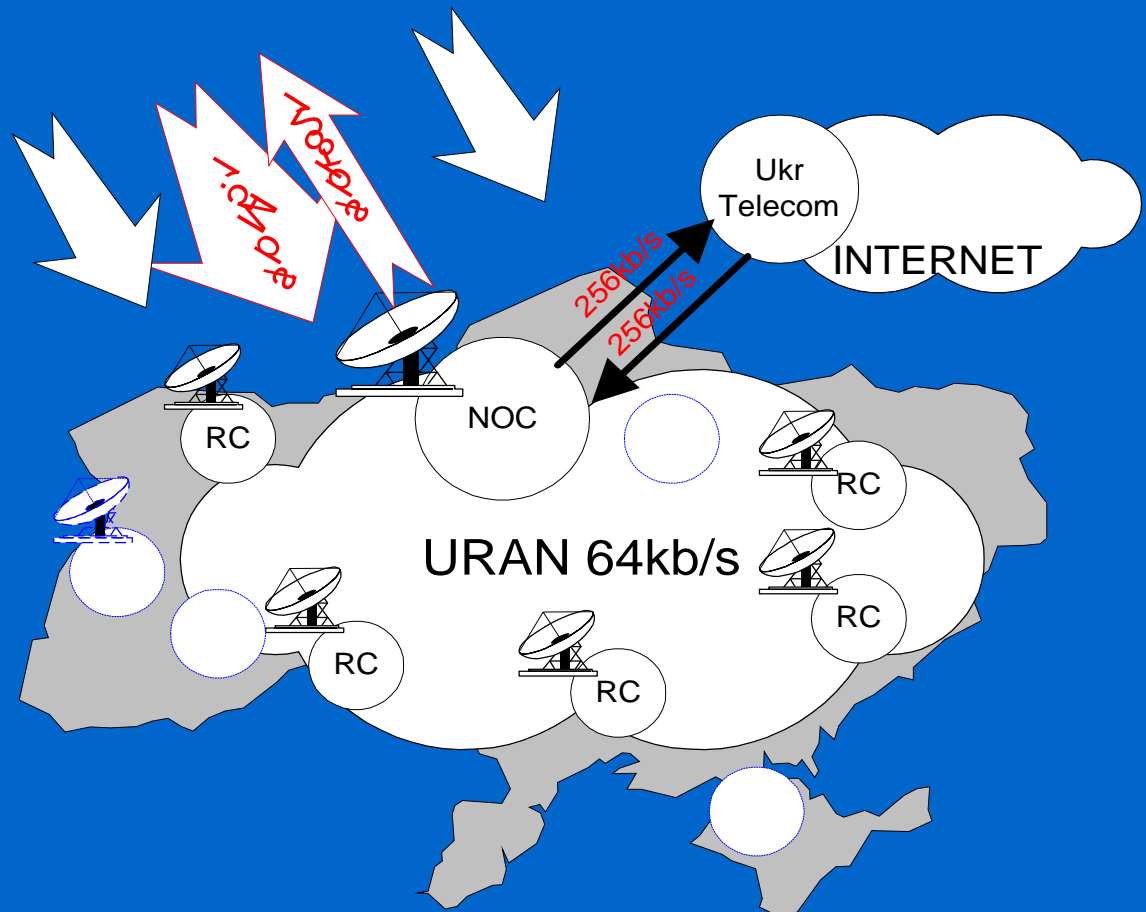
Beginning in the Year 2000

- | | | |
|--------|--|-----------|
| Step 1 | “More Users in more Regions”
“INTERNET - to the Regions”
25...50 Users | Year 2000 |
| Step 2 | “IT Services in URAN”
Strengthening of the Backbone
Up to 100 Users | 2000-2001 |
| Step 3 | “Forward to the new Technology”
Step towards the High-Speed Networks | Year 2001 |

URAN Phase II

Step 1 - Year 2000

- 6 - 8 RC
- 64kb/s Backbone
- INTERNET
 - In 1.5 - 2 Mb/s
 - Out 384kb/s
- MAX Users - 60 .. 80

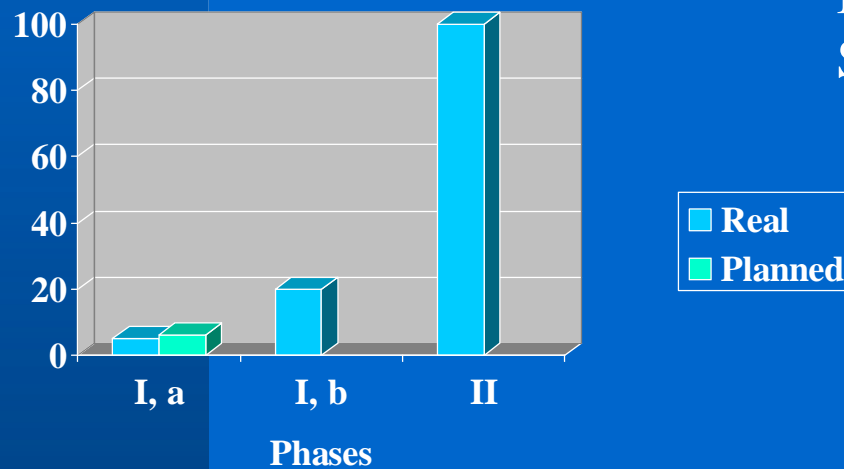


URAN Phase II

	NATO NIG	URAN	Ukraine state
Infrastructure	250'000\$	200'000\$	+100%
Channels			
- installation	50'000\$	+75%	
- fees	50'000\$	+100%	50%

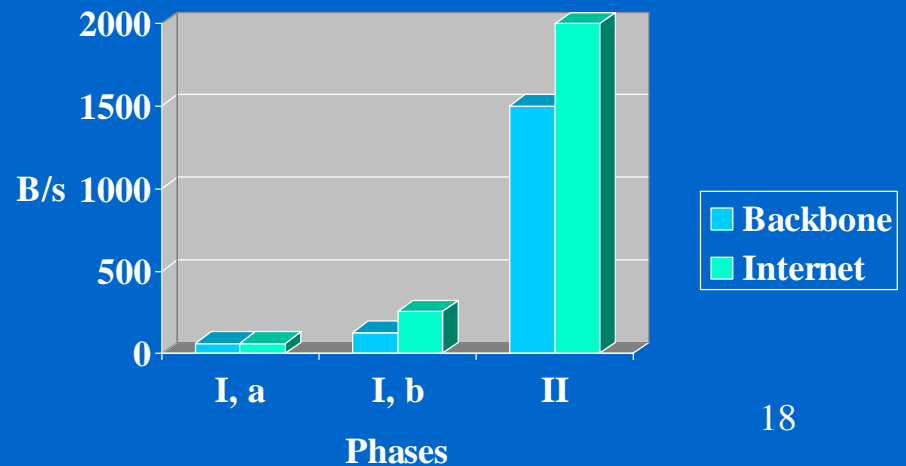
URAN Users - Strategy

Number of Users

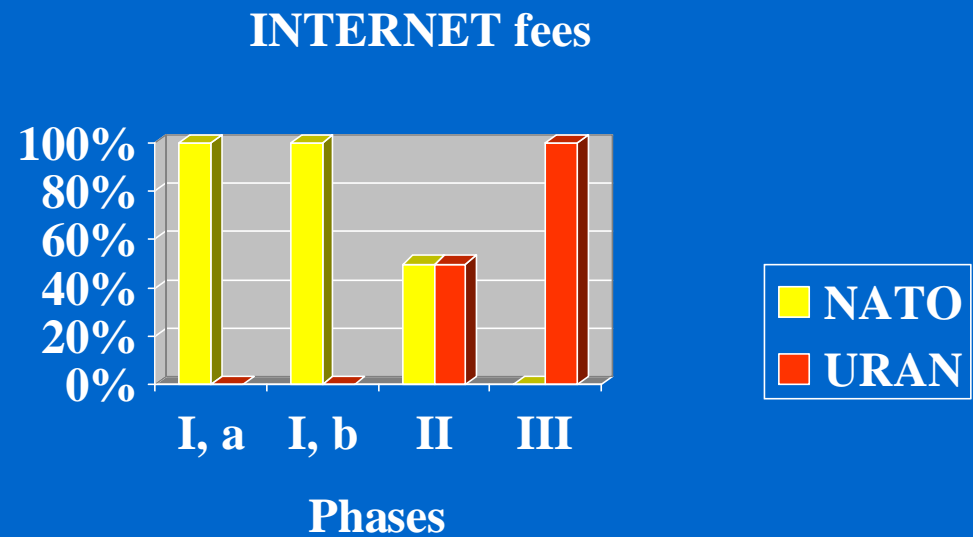
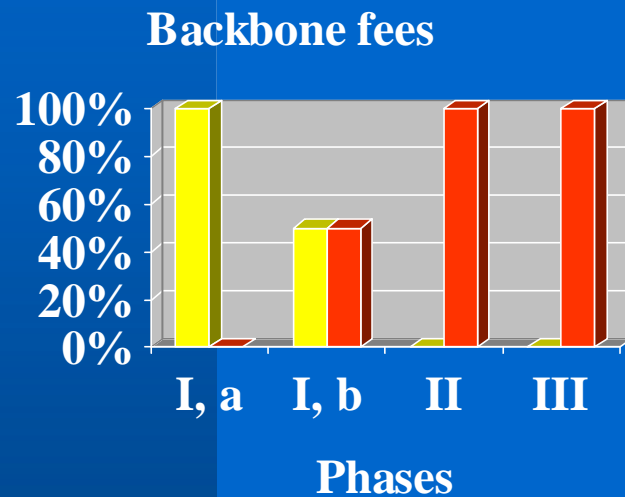


In order to keep User's Fees Stable - approx. 450\$ per 64kB/s

Bandwidth



URAN Channel - Strategy



Conclusion

- On each stage URAN has enough capacity to connect new users
- First 8-12 Users from different regions of Ukraine have a good chance to become an RC and participate in NATO Grant (NIG) directly
- Basic equipment set would be given from NIG or Cisco donation
- Channel resource is also partially covered by NIG
- **Such a Users/RC have to cover all costs for initial installations and monthly fees for the channels - URAN has to be in a nearest Future a self sustainable Network.**

URAN

Are You Ready ?!



Welcome on Board !