Young, Yet With Extensive Know-how: NetUP from Moscow
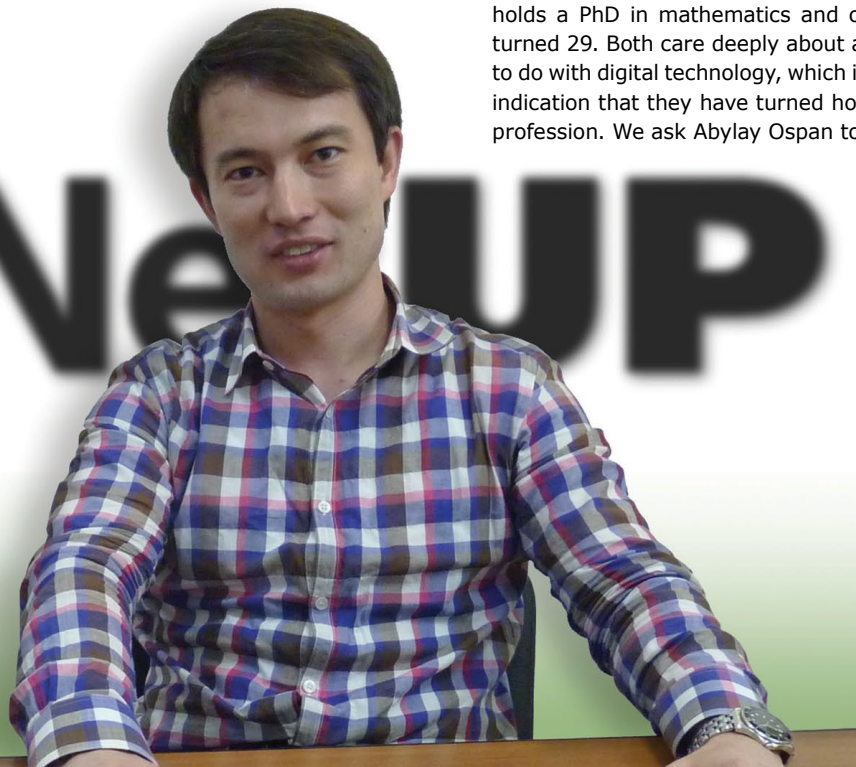
Alexander Wiese

Isn't 'young' and 'know-how' a contradiction in terms? In many cases it is, but if we're talking about know-how in the making, the two terms go together very nicely. 'Young' in such a case is an asset, as it means there's no obligation to depend on past developments. So where can we find a perfect example for 'young' meets 'know-how'? If we're talking about digital technology Russia springs to mind. And if we support our assumption with the fact that Moscow State University is ranked right among all the top-notch universities in the world when it comes to digital technology teaching and research, then Russia seems to be spot on!

Actually, it's a triple hit: NetUP, a company founded as recently as 2001, has its administrative office in the vicinity of Moscow State University. The closest metro Station is 'University' and the two founders of NetUP are – naturally! – former students of that university. Actually, it's not only the two founders who are Moscow State University graduates, but almost all other employees as well. It's clear for all to see that NetUP pools together collective digital technology know-how, while everybody working at NetUP is still very young.

Let's start with Abylay Ospan, who is one of the company's founders and acts as Director: "I'm 30 years old," he says smilingly. His founding partner is Evgeniy Makeev who holds a PhD in mathematics and only just turned 29. Both care deeply about anything to do with digital technology, which is a clear indication that they have turned hobby into profession. We ask Abylay Ospan to give us

■ **NetUP co-founder and Director Abylay Ospan showing the company's latest developments: PCIe cards for 2 x DVB-S2, 2 x DVB-T or C, 2 x ASI. All cards come with two CI slots.**

NetUP

a brief run-down of the events leading to the establishment of NetUP. "When we still were students we were working on billing software for Internet service providers."

He was still in his final semester at university when Abylay Ospan teamed up with his colleague Evgeniy Makeev to set up their own business, which offered exactly that billing software to potential customers. The point in time could not have been better. While in their first year of operation sales never exceeded five-digit USD figures, from year two onwards turnover increased consistently. It was the time when ISPs sprung up all over the CIS countries, and most of them turned to NetUP for software solutions. "More than 2,000 ISPs currently rely on our billing software, with 90% of them being located in CIS countries," NetUP Sales Manager Konstantin Emelyanov proudly states. "Small and medium-sized providers in particular like our software solution, which is ideal for a client base of up to 50,000." Even the company name is derived from that strategy: Network Up – a company that takes care of network expansion.

NetUP has added another business segment to its portfolio in the meantime, which fits in smoothly with the original software business for ISPs: NetUP is now also developing software and hardware for IPTV. "IPTV has already gained a 70% share of our turnover," NetUP Director Abylay Ospan reveals and adds "annual sales are high in the one-figure million USD this year." As a matter of fact, it has become difficult to differentiate between software for ISPs and IPTV, as many Internet service providers have become IPTV providers as well. "For those providers we offer middleware, video-on-demand servers and streaming servers," Abylay Ospan explains.

It's not only since the DVB-IP Gateway 4x test report that readers of TELE-satellite might be familiar with NetUP. This device allows setting up your own IPTV network in next to no time (TELE-satellite 10-11/2010). Even before that TELE-satellite reported on a world first launched by NetUP: A DVB-S2 card with two inputs (TELE-satellite 02-03/2010).

Of course we wanted to learn more about that product line, and Abylay Ospan has the details. "We develop everything in-house. Both software and hardware (circuit board layout) have been designed by our very own engineers."

Andrew Budkin is the head of Software Development and knows precisely the amount of effort put into such a project. "For the DVB-S2 card two of our engineers worked together for half a year until the

■ **Evgeniy Makeev is co-founder of NetUP and holds a PhD in mathematics.**

hardware was ready for production. An additional two software engineers wrote the drivers required for the Linux-based software." NetUP even played a major role in finding the right manufacturer for card production. "A facility some 100km from Moscow is in charge of manufacturing our PC cards."

The cards are used in professional set-ups only, which means production numbers are on the lower side when compared to mass consumer good. "We only produce some 1,000 cards per annum," Abylay Ospan tells us. This has made us curious and we're eager to find out what else is in NetUP's pipeline. "Right now at the end of 2010 we're launching a PCIe card for DVB-T and DVB-C." Just as the DVB-S2 card this card, too, has two inputs and tuners. "We're also working on a card with two ASI inputs."

PCIe cards from NetUP are not targeted

to the private end user market. They are used in professional streaming equipment, like NetUP's DVB to IP gateway 4x and IPTV Combine 4x. The latter (IPTV Combine 4x) is a special product for the hospitality market. This is an all-in-one IPTV solution that includes IPTV Middleware, billing, DVB to IP gateway and VoD server (see test report in TELE-satellite 10-11/2010). Such IPTV systems are a favorite in hotels and hospitals, because each room can be accessed individually but the cable infrastructure can be laid out as a bus system.

"One of our largest customer groups are hotels which generally favour two-way systems. This means that hotel guest are not only able to enjoy TV and Internet access in their rooms, but that hotel management is also able to send personal and customised messages to guests in their rooms," Abylay Ospan lays down the reasons behind such infrastructure.

There is another feature which shows that PCIe cards from NetUP are designed for the professional high-end market: "We are now beginning to ship our cards based on the ALTERA chipset." What makes this so special? Well, the hardware is identical for each customer and only the software on the PCIe card defines its scope of application. "In the third quarter of 2011 we will also base our 2 x DVB-S2 card – which was presented in TELE-satellite – on the ALTERA chipset," NetUP Sales Manager Konstantin Emelyanov adds.

Speaking of products already introduced in TELE-satellite: The NetUP DVB-IP Gateway 4x can be ordered with an H.264 encoder/transconder as of Q3 2011. Things get even more exciting towards the end of 2011 when "we will offer the DVB-IP Gateway 4x with unicast." This will make the device – which hitherto is only available as a multicast model – even more user-friendly and will also allow laymen to distribute their TV channels via the Internet.

Head of Software Development, Andrew Budkin, has another piece of interesting news in store. "It makes economic sense for some providers of Internet-via-satellite only to use the base band which saves valuable bandwidth." This is why NetUP has decided to develop PC cards with precisely that strategy in mind. "Large utilities might be extremely interested in that technology," adds Abylay Ospan and has the following example: "Gazprom uses this one-way technology for its local networks."

1. Always there for customers: Sales Manager Konstantin Emelyanov.

2. This is where NetUP runs its business on the ground floor. Two satellite dishes on the roof send down the signals required for developing innovative satellite cards.

NetUP is just the specialist for designing the right products complete with corresponding software for niche applications like that.

So far we have heard all those great success stories about innovative products, but who are the people doing all the hard work behind? Having a look around the NetUP premises sheds some light on this question. A total of ten engineers and programmers work in Development, another ten are engineers and programmers in Technical Support for solving problems that professional customers might experience, and another ten employees are in charge of Management and Administration.

Sales Manager Konstantin Emelyanov gives us some idea of where company representatives can be met face to face: "Each year we actively participate at the IBC (Amsterdam), CSTB (Moscow) and IPTV World Forum (London)."

If you're looking for a young company with extensive know-how, you've come to the right place at NetUP. The company has the cutting edge when it comes to the latest IPTV technology and is filled to the brim with technical knowledge which NetUP employees acquired from Moscow State University. All this provides enormous impetus for conquering the brand new world of IPTV!

**In charge of Software Development: Andrew Budkin heads the software team.**

NetUP's Sales Director is Alexander Chistiakov

Technical customer service is a given at NetUP: One third of the workforce looks after customers and makes sure NetUP products and their software are used appropriately. Alexey Butkeev (left) heads Technical Support, Eugene Druzhinin (right) is one of his team members.
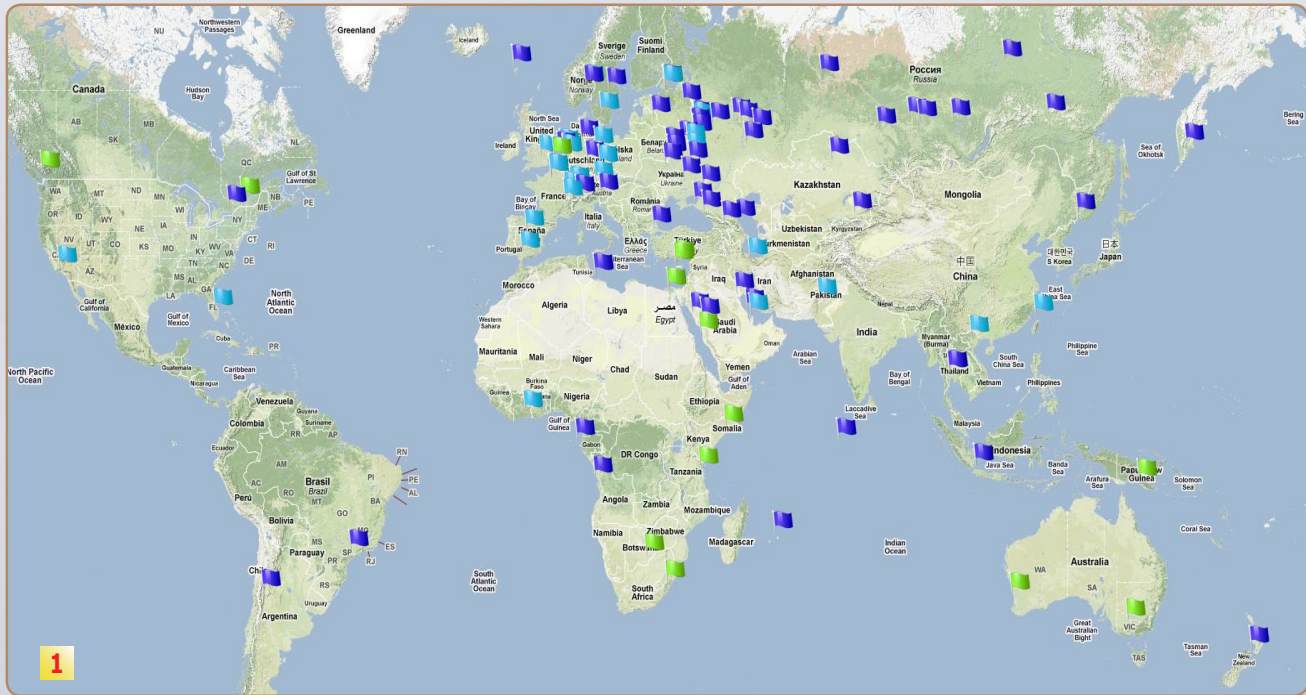
1. The world map shows all global installation sites of NetUp products: Pale blue flags indicate installations of the Dual DVB-S2 CI PCIe card, dark blue flags show IPTV installations and green flags are placed wherever a UTM5 system is installed.

2. The figure up on the dome all but vanishes in the autumn mist: This grand building houses Moscow State University. For many years it was the tallest building in Moscow and almost all NetUP employees have studied there.

NetUP installations for commercial customers

Customer	Country	Deployment type	Configuration
Maldiviana	Maldives	Dive yacht	IPTV Middleware + VoD + DVB to IP gateway
Faroe Telecom	Faroe Islands	Telco	IPTV Combine
Nevron d.o.o.	Slovenia	Sytem integrator, for a telco	DVB-IP gateway
Amino Communications	United Kingdom	IP STB manufacturer, IP STB test lab	2 x IPTV Combine
Sunlink	Russia	Housing estate	IPTV Complex: DVB-IP gateways, VOD servers, Middleware, CAS, Billing system
Telio AG	Germany	Sytem integrator	DVB-IP gateway
Netline	Russia	Telco	Middleware, DVB-IP gateway, CAS
Perfect Technology	Saudi Arabia	Sytem integrator	IPTV Combine + DVB-IP gateway for a hotel IPTV solution
HPM Innomedia	Thailand	System integrator, for a telco	IPTV Combine 4x
VTE s.r.l.	Italy	System Integrator	IPTV Combine 4x
Cygate AB	Sweden	System Integrator	Middleware + CAS
Zyxel	Norway	IP STB manufacturer, IP STB test lab	DVB-IP gateway 4x
Vortec	Argentina	A telco	IPTV Combine 4x + DVB-IP gateway 4x
I-Tel solutions	Thailand	A system integrator	IPTV Combine 4x
Security Systems	Kuwait	A system integrator	IPTV Combine 4x
Bait Ashmaes	Libya	A system integrator	IPTV Combine 4x
Protel	Turkey	A system integrator for hotels	IPTV Combine 4x
NueTel Communications	Bahrain	A system integrator	IPTV Combine 4x + DVB to IP gateway 4x
Utelisys Communications	The Netherlands	An Internet TV provider	Dual DVB-S2-CI
Mobiclip	France	A mobile IPTV solution provider	Dual DVB-S2-CI
Centum Solutions	Spain	An engineering company	Dual DVB-S2-CI
FreeBox S.A.S.	France	An ISP	Dual DVB-S2-CI
Schlumberger	Gabon	An oilfield services company	DVB to IP gateway 4x

■ Selection of international customers using NetUP products.