



The economics of hiring and staff retention for an IT company in Russia

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INTRODUCTION

- ▶ Lack of human resources – one of the biggest problems of the IT industry in Russia
- ▶ Some ten or fifteen years ago the lack of SW development resources in Russia was commonly blamed on the brain drain towards the West. Now this is no longer the case
- ▶ The idea of further education of IT staff is also gaining in popularity
- ▶ The total output of Russian higher education streams producing new IT and SW specialists is in the area of 150 thousand graduates a year (the quality of graduates varies a lot among the institutions, especially in small towns)
- ▶ New graduates of higher education in Russia are not trained in the SW development management processes and in professional communication and teamwork skills



PROFIT MARGINS OF SW DEVELOPMENT BUSINESS IN RUSSIA

- ▶ Any software business requires many well-qualified entry-level developers and testers
- ▶ Base salary level – \$1000
- ▶ Russian social tax – 26.2%
- ▶ Average office rent – \$350 per employee
- ▶ Service costs (administration, communications, technology and hardware) – 30% of base salary
- ▶ Profit tax – \$48
- ▶ Total overhead per one entry-level staff
 $\$1000 + \$262 + \$350 + \$300 + \$48 = \1960 per month
- ▶ Benefits **\$2400 per month** (160 work hours, \$15 per hour)
- ▶ Efficiency is not more than 85% (sick leave, training, etc)
- ▶ $\$2400 * 0.85 = \2040

Profitability is low – only 4%



TRADITIONAL WAY OF RECRUITMENT

- ▶ There are approximately 25 universities and other higher education institutions (about 4000 graduates annually with B.Sc and M.Sc diplomas) in Saint-Petersburg
- ▶ The demand for such specialists is estimated be ten times higher than this number
- ▶ Conversion of other specialists to SW development and information technologies
- ▶ Today the trend has changed (retraining of other specialists to IT qualifications has all but stopped)



COSTS OF TRADITIONAL WAY

- ▶ Even the big corporation allocate budget for recruitment costs. Every successfully recruited candidate costs the company 15–20% of the annual base salary (\$3000–\$4000)
- ▶ «Time of productivity» – between 1,5 and 3 months (this costs the company between \$3000 and \$4000)
- ▶ Third party course training required (another \$1000–\$2000) and the established staff spends time to carry out the induction with the new employee (estimated \$1000 to \$2000)
- ▶ We get the costs of induction to be somewhere between \$8000–\$12000 per employee
- ▶ Natural question – why do the companies go for the expenses and trouble if it does not pay in the end?
 1. The first reason is the productivity volumes – to keep orders coming in
 2. The other, less obvious reason is to do with retention



OUR APPROACH TO RECRUITMENT

- ▶ Idea of training your own workforce when still in education
- ▶ Lanit–Tercom and faculty of mathematics and mechanics of St.Petersburg State University implemented a practical teaching process through participation of students in real–life SW development projects
- ▶ Recruiting 20 to 25 people annually to Lanit–Tercom directly after graduation
- ▶ The collaboration was started almost ten years ago and continues now with the stable rates of success



MAIN POINTS OF OUR APPROACH

- ▶ Education partner teaches a firm foundation of courses in mathematics and in information sciences and follows the international standards in teaching, such as Computer Science Curricula 2001 or Software Engineering Curricula 2004
- ▶ Company partner invites students in on SW development project participation and spends time in developing their communication and process skills



RESEARCH WORK

SW engineering students must do some research work in their third and subsequent years of education. In addition, M.Sc. students also produce their master thesis in their final year. The collaborating company can participate actively in all these activities

- ▶ Appointing supervisors
- ▶ Appointing group tutors
- ▶ Supplying the process framework and the necessary equipment
- ▶ Providing timely and accurate feedback
- ▶ Supply teaching some of the newer subjects in SW engineering



HOW DOES IT WORK IN PRACTICE?

Year 2008–2009

- ▶ 9 student project groups
- ▶ 80 participants (60 students remained committed to the end of projects)
- ▶ Each project is led by at least two Lanit–Tercom employees
- ▶ The topics for the projects are selected by the faculty members and by Lanit–Tercom student group leaders
- ▶ When a project is completed, the project team makes project presentation for an approval review. During the review, every project team member must tell about their part of work and their understanding of the results and process
- ▶ For the best students, selected from all project teams, we offer the possibility of a summer school during the university vacations



HOW MUCH DOES IT COST TO THE COMPANY?

- ▶ Each Lanit–Tercom employee participating in the scheme is paid a small bonus (\$100–\$200) in compensation of approximately six hours a week workload
- ▶ In the year 2008/2009 Lanit–Tercom spent \$30000 for the student projects and teaching, and 30 new graduates were recruited in the same year (each recruitment cost approximately \$1000 to the company)
- ▶ Most of the current department heads and team leads in Lanit–Tercom were originally recruited via the same process
- ▶ Lanit–Tercom HR service is also actively recruiting people. Therefore we have material for comparison of both traditional and customized recruitment



IMPLICATIONS TO STAFF RETENTION

Full list of retention factors (staff surveys at Lanit–Tercom)

- ▶ Large stable company with comparatively long standing in the area
- ▶ Close links to St.Petersburg State University, specialization in high technology projects
- ▶ Diversity in product and service lines, opportunities to gain expertise in various subjects and technologies
- ▶ CMM certification ensuring efficient management and established production processes
- ▶ Competitive salary
- ▶ Other forms of compensation (private medical insurance, free foreign language lessons, fully official salary, corporate entertainment)



CONCLUSIONS

- ▶ Traditional recruitment with the help of agencies and advertisement results in high initial costs of hiring and induction, which may not be easily offset by profits if the turnover is relatively high in the company
- ▶ Collaboration between IT companies and academic institutions of higher education looks favourable and mutually beneficial
- ▶ Recruitment via the collaboration program has been shown as an efficient retention mechanism, helping to increase loyalty in the newly-hired employees

