

World-Wide Technical Internship Program: A Model to Advance Women in the a Customer Support Career

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Abstract

In a worldwide technical support model, there are various tiers of support staffed by different technical skill levels. Most women in these customer facing tiers do not attain high visibility and career progressions due to lack of exposure to deeper skills- both technical and those needed for customer facing interaction. For a rewarding career, technical women must explore how they can better prepare themselves and excel in technical roles in their respective geographies.

Geo specific focused technical development for women helps retain skilled technical experts that in turn caters to the rising number of women customers in the technology industry and diversity of skills that women can bring to an organization.

To enable this worldwide enhanced morale and technical skill level in the workforce, the Austin Development Support center is developing a program that enables women from across the geographies to spend time in the development centers and customer support centers in US. This program- called Worldwide Technical Internship- is run for a 6 week period every quarter across 4 geographies.

Highlights of the program:

- Mentors offer support and training
- Women that are selected for the internship are assigned 2 mentors- one in the technical area they work in and another woman role model. The technical mentor is responsible for running the intern through a technical curriculum in the chosen area.
- Knowledge database and contact point—more peer recognition
- The intern is the focal point for new technology knowledge dissemination in the geography. As focal point, the women conduct seminars and other activities in their area—technical as well as soft skills related. This establishes them as leaders who then mentor and encourage other women.

Impact of the program from past year –

- Higher retention in interns:
- The Worldwide Technical Internship program has helped interns be more satisfied in their careers.

- Higher customer satisfaction in local geographies
- Based on various customer surveys, there are higher satisfaction scores from customers worldwide that demonstrate effectiveness of this customized mentoring program
- Enhanced knowledge creation from local geographies helps in increased ownership for technical content among various technical leaders

Intro

Customer Technical Support roles could be key job roles for women to contribute in the Technology industry. However our research shows that there is scope for improvement in many geographies to attain a well balanced ratio of women leadership in customer support roles. Recognition of the fact that women need to be encouraged in such programs led us to design the worldwide internship program to enhance focus on women in customer service. This is to encourage women in customer support roles to step up to leadership in the Technical Support environment. Research that was conducted in Europe and Asia indicates that women are lagging in both numbers and strength in science and technical arenas

The Commission of European Communities¹ stated in their research on Women and Science: Excellence and Innovation - Gender Equality in Science² that “Since the 1990s, the majority of university graduates in Europe have been women, but the proportion of women in top positions in European science is still very low, even in the traditionally more ‘feminised’ fields of science. The scarcity of women in senior positions, and as a result in bodies such as scientific boards, inevitably means that their individual and collective opinions are less likely to be voiced in policy and decision-making processes, which may lead to biased decision-making on topics of future research development. If women scientists are not visible and not seen to be succeeding in their careers, they cannot serve as role models to attract and retain young women in scientific professions.”^{3,4,5}

Asia –Pacific as a customer segment geography also needs focus to achieve a women friendly technology support environment. The China Daily, is an English-language daily newspaper published in the [People's Republic of China](#)., reported that “China’s historical gender equality in science found in the 1970’s has diminished as the country increasingly westernizes. Although over 50% of graduates are women, only 30% earn degrees in science and engineering fields. Also women account for only 25-35% of researchers in developing countries. These worldwide statistics bring to light growing gender disparity in this growing market segment and the need to focus on technical leadership mentoring”.⁶

According to a survey of female academics from Asia, researchers and postgraduate students conducted between 2005 and 2006, the most attractive factor for women choosing science is that they regard it as a stable career. The survey⁶ found 94 percent of respondents said they had met various obstacles when engaging in science. For example, if the applicants have similar education backgrounds, the agencies tend to choose the male. Some organizations even state clearly that they only want to recruit male candidates for various perceived reasons of comfort and familiarity.

Clearly, significant challenges lie ahead for women to achieve parity with men in the technical workplace. According to statistics from the US Department of Labor for 2006, the IT field does not rank among the 20 leading occupations for women in the US.^{7,8} More must be

done at corporate or possibly a national level to create a business climate that is able to attract and retain women in the IT field.

The general malaise of women in science is echoed in the technical area for front end Customer Support. Out of 100 employees in one segment of IBM technical customer support in Europe, Middle East and Africa (EMEA), the proportion of women is less than 5% (IT Industry ratio in EU: 28%)^{9,10} The ratio in Americas Front End customer support is also only 20% of all employees.

The goal of the WW technical internship program is to provide an opportunity for women from World Wide front end customer support teams to gain technical skills that lead to leadership positions and advancements in their careers.

Program Overview

The IBM Customer Support Internship Program assists high achieving customer facing Support Techs (ST) World Wide enhance their technical and leadership skills by working under the mentorship of a Development Support Specialist (DSS) in IBM, Texas.

The program can be tracked to 2000 when only a few employees participated. Over the years the program has steadily grown in numbers, structure, and stature. The program accommodated 27 interns in 2007 and expects over 40 interns in 2008.

Candidates are recommended for the program by their managers, peers and Level 3 counterparts they work with on a daily basis. Interested parties must fill out an application where they state their goals for participating, education, experience and special certifications and awards. Selection is based on the:

- Quality of their application,
- Ability to meet the prerequisites,
- Needs in their geography for deeper technical skills.

Candidates and their managers select an internship focus from fourteen specialty areas. Applications are reviewed and selected by mentors, team leads and the Internship Program Manager. Mentors are chosen by managers based on their reputation as top technical experts and for their teaching skills. Mentors work with each candidate to develop a personalized action plan for prerequisite training and a detailed plan for their internship before they arrive.

Internships are set for a six week duration which provides enough time to make inroads into the technical topics and develop one of the most important aspects of the program, networking relationships with the DSS Teams. These networking relationships help in the future for effective problem resolutions and higher customer satisfaction.

Interns hone their action plan according to their ability to assimilate the new information and take advantage of unique opportunities for classes and training that arise during their visits. Interns are encouraged to develop their action plans to address gaps in their knowledge and fill the skills deficits in their home teams. Interns benefit from the rich environment of technical expertise, test equipment and labs, and educational courses that are available during their internships.

The DSS Labs house over 600 test systems and a myriad of test configurations that allow the interns to gain hands-on experience. Although Support Techs always have permission to access the Test Labs they are more apt to take advantage of that opportunity once they have “live” exposure and experience.

Interns are also granted source code access during their stay. This is often the first time they truly get a sense of the underlying structure and workings of the products they support. Although learning the intricacies of source code is not explicitly needed for TS, interns have commented that access to the code allowed them to greatly improve their self-sufficiency in identifying defects and solving problems. Interns can work with their managers to reapply for source access once they return to their home countries.

The Itrans Program encourages, and this year requires interns to complete a “final project”. Final projects are self-designed with input mentors to promote deep investigation into a specific topic area that may not be well documented or understood. Projects are targeted to address high profile problem areas that TS would not have the time or means to investigate during the course of their normal jobs. Interns are encouraged to develop demonstrations and presentations they can return home with and use to educate their peers. Final projects are posted on the Internship Website to be used as a new resource for Support Techs worldwide.

To build and nurture the intern’s experience, only one intern is accepted by an individual team at a given time. This ensures teams are not overtaxed and interns have sufficient time and attention from mentors and local teams. Relationships and professional networks are developed in a variety of ways ranging from:

- Attending development meetings to understand the technical issues underlying defects to trialing upcoming products,
- Participating in technical workshops,
- Spending time with area managers,
- Having fun outside of work with local team members.

Several interns world wide are generally participating in unique internships at the same time. Mentors collaborate and provide cross training to interns outside their areas. Interns have enjoyed the boost of working with a variety of area experts and enhancing their network with other TS around the world.

This year the Internship Program received a record number of 42 requests to participate this year of which approximately 30 are expected to be accepted.

2007 Demographics for Internship Program

	Geography	No. Candidates*	No. of Women Candidates
	United States (US)	11	0
	Europe, Middle East and Africa (EMEA)	14	2
	Asia Pacific (AP)	0	0
	Latin America (LA)	2	0
Total		27	2

2008 Candidates Demographics for Internship Program

	Geography	No. Candidates*	No. of Women Candidates
	United States (US)	13	0
	Europe, Middle East and Africa (EMEA)	11	0
	Asia Pacific (AP)	9	1
	Latin America (LA)	6	1
	Canada	2	0
Total		41	2

* 1/12/2008

Steps to encourage women participation

- Raising visibility that we need a proportionate number of women in tech support
- Identify any inhibitors to having women participate in the program
- Address the gap in specific countries by soliciting more nominations from the Technical support base in local countries
- According to Women's..., the gender gap in science has been reported to be the greatest in Japan, South Korea, Austria and Switzerland

Program Results

Itrans interns were surveyed throughout 2007 to measure their satisfaction with the program after they completed the program. Survey results are based on a 1-5 scale, with 1 as the highest rating. The overall satisfaction rating for 2007 was 1.3.

	1H 2007 (11 interns)	2H 2007 (16 Interns)	2007 Cumulative (27 Interns)
Completed Goals Established	2.0	1.5	1.7
Satisfied with Level & Quality of Mentorship	1.5	1.3	1.4
Satisfied with Itrans Coordination Support	1.2	1.2	1.2
Satisfied that skills gained be useful in your current job	1.6	1.2	1.4
Plan to use new skills to train and mentor others	2.7	1.6	1.9
Home geo allow you to use your newly learned skills	1.8	1.7	1.8
Will you be able to maintain relationships you built with Ztrans team	1.4	1.3	1.3
Overall satisfaction with Itrans Program	1.5	1.2	1.3

Program Value

The Internship program has a trifecta effect by enhancing an employee's technical and leadership skills, boosting self-sufficiency in the individual geographies and improving Division goals for customer satisfaction.

Customer Support Service Managers for the US and EMEA were interviewed to understand how internships effect an individual's stature within their teams and its impact on career growth. Both US and EMEA service manager stated that only the top performers in the team were selected for internships and were already viewed as leaders within their team. Internship served to only further enrich their knowledge base to cement their leadership position. The EMEA interns were generally promoted to the most skilled team within their areas shortly after completing the program.

Although self-sufficiency improvement can not be directly tracked back to the internship program, feedback from managers and interns show a direct correlation. Both self-sufficiency and customer satisfaction rose in 2007.

Interns also commit to taking an active role in training their peers when they return from an internship. This raises the skill level and self-sufficiency for the entire geography.

Feedback from interns in 2007:

"In my first week back, I got involved in a crit sit that had been open for 5 days, I was able fix the problem in one hour. There is no way I could have done without an internship".

"I started training my co-workers the moment I got back....I am the Subject Matter Expert (SME) on my team so they (...team) come to me a lot for assistance. Since I have been back I have not only been able to give answers to questions, but explain the "why" behind the answer.

"Working with the (mentors) and getting know people on the team, gave me a good opportunity to learn and collaborate on questions, issues and new developments..."

Looking to the Future

Although individual programs within IBM can not alone solve the significant gap that exists for women in the IT field, it can be used to exemplify a viable way to begin to bridge the gap. The IBM Internship Program offers an opportunity for women working in the Customer Support role to gain advanced skills and demonstrate leadership among peers. Graduates of the program are prime candidates for career advancement and generally step up to more advanced technical and leadership positions shortly after completing the program. Graduates of the program should serve as role models and mentors for other women hoping to advance their careers.

Corporations such as IBM have begun to recognize the need for work-life balance and flexible work schedules as key to retaining employees and vital to support women in the workplace. Managers must continue to be made aware how important enforcing these values are in developing a diversified workforce.

The IBM Internship Program Management recognizes that this program can be a key contributor for advancing women in the field. The program will continue to raise awareness for this need and also provide the opportunity as the number of women entering the technical support arena grows.

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