



The SWIFT Institute Student Challenge

Financial Solutions from the Next Generation

COMPETITOR'S HANDBOOK 2017

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1. FOREWORD

Financial services have undergone and continue to experience huge change in terms of newer and faster technology, tighter and increased regulation and greater expectations from customers. This also brings new risks, not least of which from cyber-criminals.

The SWIFT Institute Student Challenge aims to tap into the minds of the next generation of thought leaders, entrepreneurs and practitioners in order to build upon these changes and mitigate the risks. The inaugural Challenge was held in the UK in 2016, and was a great success, bringing students together with financial industry practitioners to look at ways of improving global remittances.

*I am therefore delighted to confirm that The SWIFT Institute Student Challenge 2017 will take place in Canada (launching late 2016), and culminate in a grand finale at Sibos Toronto in October 2017. The topic for the 2017 Student Challenge in Canada is **securing bank channels**.*

The aims of the SWIFT Institute Student Challenge are:

- (i) To present a challenge or scenario to the student community to analyse and produce new thinking, solutions and concepts.
- (ii) To help support and coach students and teaching staff in presenting these ideas to the financial sector.
- (iii) To help promote and commercialise these ideas within the financial sector, where possible, to affect change for the better.
- (iv) To provide an ongoing network and community for all participants and stakeholders.

I look forward to receiving your submissions, and hopefully meeting you at Sibos where you will have the opportunity to present your ideas to a global audience.

Peter Ware

Director, SWIFT Institute

2. THE CHALLENGE

The challenge has been selected by the SWIFT Institute based on current industry priorities and challenges, with input from the Canadian financial community and government.

The 2017 SWIFT Institute Student Challenge:

How can bank channels be secured against ever increasing cyber-attacks?

Cyber-attacks are growing in number and sophistication. Banks now interact with their customers through a growing array of digital channels, and cyber-criminals are continuously testing these channels for gaps in security to commit fraud. Cyber-criminals are sophisticated, use advanced tools and technologies and invest heavily in their fraudulent activities. Combating fraud is a challenge for the whole industry – there are no quick fixes. The threat landscape adapts and evolves by the day, and the industry must remain vigilant and proactive over the long term.

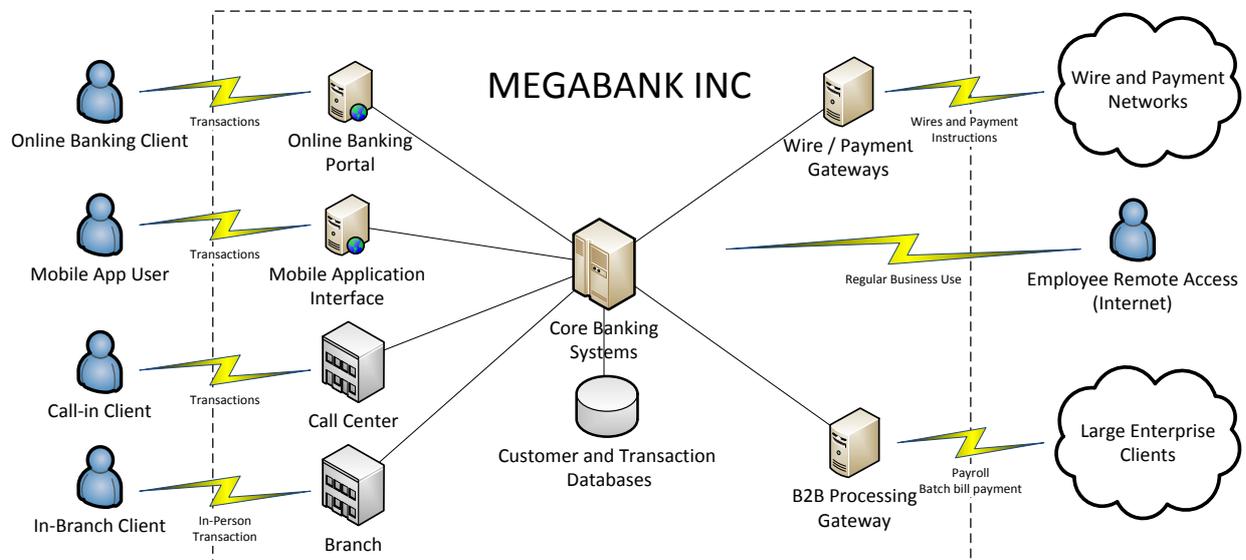
Advances in technology and evolving client preferences (such as the demand for convenience and around-the-clock access to banking services) have driven a shift in customer demands and usage patterns of traditional banking channels such as branches. Direct channels from banks have emerged as a key method to reach a greater number of customers at a much lower cost. Internet and mobile banking are two of the key channels used by customers (with electronic banking also being used by primarily corporate customers). In Canada use of mobile banking is seeing strong growth with 34% of bank customers using mobile as a channel in 2016, up from 27% in 2015 and 20% in 2014.

To secure these channels against cyber-threats and eliminate security gaps, organizations deploy a wide range of security controls. These controls can be detective, preventative, or corrective, and are typically these technological, procedural or process based in nature. Examples include: firewalls, a strong password policy, regularly changing passwords, two-factor authentication, physical tokens, digital tokens through phone apps, etc. With the increasing sophistication in cyber-attacks, however, new approaches and methods of protection are required. Banks must ensure they are fully protected on every front and yet open for business; while cyber-criminals have no such obligations and need only find one point of entry / weakness.

*This challenge seeks to answer the question: **How can bank channels be secured against ever increasing cyber-attacks?***

Simplified Banking Ecosystem

Consider the following simplified diagram demonstrating the various channels and use cases a modern bank must support:



The dotted line represents the trust boundary between bank systems and the outside world. Each of the channels that cross this boundary are crucial to the operation of the bank, while also representing an attack surface available to a cyber-criminal.

We have purposely not added baseline controls to the diagram (e.g. firewalls, VPNs, Security operations monitoring, etc.), as this challenge seeks to identify fundamentally new approaches to securing the environment and rather than a comparison assessment.

This challenge seeks to bring out new ideas to secure the above ecosystem. Ideas can include development of new tools, new processes and procedures, creation of new organisations, etc. All ideas are welcome to help combat the cyber-threat to banks and their customers.

3. WHO CAN ENTER

The Challenge is open to students currently enrolled at any recognised University, College or Centre of Learning. Professors, readers and teachers are permitted to assist their students with their submission, but the submissions must be in the name of the students.

Submissions can be made by individual students or by teams of students (across the same or different universities or colleges). Every submission is expected to give their entry a name, which relates to either their idea or their team (e.g. CyberX, Team Alpha, etc.). This is purely to help distinguish one submission from another.

Entry into the challenge does require a commitment in terms of time, media exposure and potentially cost to each entrant. The rewards, however, are significant. There is a cash prize, professional coaching, and exposure of your ideas to the global financial industry.

Shortlisted applicants will be invited to attend a coaching workshop and a showcase event where they will present their idea. Both will take place in Toronto in October 2017.

4. BENEFITS OF ENTERING

The benefits of participating in the Challenge are:

- (i) The opportunity to engage with the SWIFT community (e.g. global financial industry) and make a practical and positive difference to the financial sector;
- (ii) to stimulate innovation and creative thinking amongst your students with a sense of purpose;
- (iii) to receive both financial and reputational benefits from participation;
- (iv) to showcase and attract possible research and grants from the financial sector.

In addition, the SWIFT Institute will ensure all shortlisted participants are supported throughout the process. One of the challenges for any new idea is its concise but complete presentation in a way to attract interest. The SWIFT Institute will host a workshop to both mentor and coach participants to construct a presentation in the most effective way both in content and delivery. This has proved to be highly successful in the past and is of great benefit to student development.

5. HOW TO ENTER

To enter the Challenge, please go to www.swiftinstitute.org/swift-institute-challenge/ where you will find details and instructions on how to upload your submission. Your submission should define your solution to meet the challenge:

Identify a solution that would secure the various banking channels against the ever increasing cyber-attacks to help protect banks and their customers.

Your submission should be a free format written report of no more than 1,000 words entered into our online entry form. Supporting documentation can be uploaded in pdf or PowerPoint format. It should explain in full detail your solution, and include diagrams, model flows, etc. as applicable.

Your submission will be assessed and ranked by a panel of judges (see section 6). The top ten submissions will be invited to participate in the coaching workshop and then to present their solution at the annual Sibos conference, which takes place in 2017 in Toronto, mid-October.¹

The decision of the judges to arrive at the top ten entries will be final. Individual rankings will not be disclosed. All submitting teams will be notified as to whether or not they have made it through to the top ten.

Upon notification that you made it through to the top ten, details of the coaching workshop and Sibos where final presentations will take place will be confirmed.

Please note:

Any information submitted will only be accessible by the SWIFT Institute administrators and the Judges during the judging phase. All submissions should be clearly marked as copyrighted by the submitting team. The intellectual property relating to your submission remains with you.

¹ A maximum of two members of each of the ten finalist teams will be invited to the coaching, and to attend and present at Sibos.

6. THE JUDGES

The SWIFT Institute has a pool of judges across the financial industry including a number of senior SWIFT staff. The judges are looking for innovation and free thinking that when applied will make a real practical difference to the banking sector and its customers.

These judges have an unparalleled source of experience and are able to give encouragement and qualified feedback at every stage of the challenge.

We find that many judges after the event continue to take an interest in maintaining contact with contestants, and open doors to exciting new possibilities.

7. TIMESCALES

The website will be open for submissions from 30 November 2016 through 30 June 2017. Judging of all entries will take place in July 2017. The Coaching Workshop will be held on Sunday 15 October 2017, and the Showcase from Monday 16 to Thursday 19 October 2017, both in Toronto.

Timeline

30 Nov 2016	30 Nov 2016	30 Jun 2017	15 Jul 2017	31 Jul 2017	15 Oct 2017	16 – 19 Oct 2017
Launch of Challenge	Submission Website Open	Deadline for all Submissions	Judging of Submissions	Notification to all submitters of whether they are in the Top 10	Coaching Workshop in Toronto	Sibos in Toronto

8. THE PRIZES

There are numerous positive outcomes of being involved for students ranging from expert coaching and mentoring through to media coverage and exposure to members of the global financial industry. This is of course in addition to the kudos of winning the Challenge.

An engraved plaque will be given to each of the ten shortlisted entries. An engraved trophy will be presented to the overall Challenge winner.

Semi-Finalists

The ten shortlisted teams will be invited to attend the world's premier annual financial industry conference, Sibos, taking place in Toronto in October 2017.

- Two complimentary week long passes to attend Sibos Toronto (value of approx. CAD \$4,700 each).
- Reimbursement for two economy airfares and hotel accommodation to attend Sibos Toronto (for those entrants who are not based in Toronto).
- One day coaching session with competition judges to refine the pitch before the showcase event.
- The opportunity to make a 10-minute presentation (including Q&A) to an audience of global financial industry executives and media.

Winning Team

The winning team will be decided by digi-voting from an audience of financial industry professionals.

- Promotion to SWIFT's 11,000 member organisations around the world, and introductions to members who express interest in meeting you
- The winning entry will receive a cash prize of CAD \$20,000.²

² The winning team is responsible for any taxes that may be incurred upon winning the cash prize.

9. RULES AND RESTRICTIONS

By submitting this application each applicant agrees that the SWIFT Institute may share any submitted material with competition judges, SWIFT staff and partners. Further it is recognised and accepted that any material submitted may be freely published by SWIFT and its media partners in the spirit of the competition.

All semi-finalists must present at the showcase to remain eligible.

The overall Challenge winner will be selected and announced at Sibos. Each team of finalists will present their idea to an audience of global financial industry professionals during Sibos. The audience will have digi-voting handsets, and give a score from 1 – 10 of each presentation. The audience is likely to change throughout the presentations, and therefore the same audience will not necessarily see all ten presentations.

There will also be a panel of judges, made up of senior industry professionals, who will see all ten presentations. They will also give their scores. The audience scores and those of the judges will each account for 50%.

The audience and judges scores will be combined, thereby arriving at an overall winner. Only the winner will be announced. The remaining nine entrants will not be ranked in any way. All decisions will be final.

APPENDIX – BACKGROUND INFORMATION

SWIFT is the Society for Worldwide Interbank Financial Telecommunication, a member-owned cooperative through which the financial world conducts its business operations with speed, certainty and confidence. More than 11,000 banking organisations, securities institutions and corporate customers in over 200 countries trust us every day to exchange millions of standardised financial messages.

For more details please visit www.swift.com

SWIFT Institute is the research arm of SWIFT. It aims to provide knowledge through sponsored research projects. The SWIFT Institute unites academic study with the practice of global finance to bolster the spread of big new ideas. Through the funding and publishing of a broad range of cutting-edge research, we encourage collaboration between thought leaders in finance and academia. The 30-and counting grants awarded for independent research demonstrate the Institute's commitment to engaging the industry with relevant, constructive debate. The SWIFT Institute makes incisive research possible and ensures that the findings are effectively disseminated across the globe.

For more details please visit www.swiftinstitute.org

Sibos is the world's premier financial services event. It is an annual conference, exhibition and networking event organised by SWIFT for the financial industry. What started out as a banking operations seminar in 1978, has grown into the premier business forum for the global financial community to debate and collaborate in the areas of payments, securities, cash management and trade. Sibos 2017 will be held in Toronto from October 16 to 19.

For more details please visit www.sibos.com

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