Queens College – One Stop Service Center – Nemo-Q Queuing System Project

Application for the CUNY Excellence in Technology Award: Outstanding Project Serving Students, Faculty and/or Staff
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Introduction

We believe our implementation of a student One Stop Service Center qualifies for the CUNY Excellence in Technology Award, specifically the Outstanding Project Serving Students, Faculty and/or Staff award.

The One Stop Service Center (OSSC) is a mix of place, technology, and well thought out policies and procedures, structured to provide students and parents with a physical portal of services, which will assist them in enrollment, financial aid, fees and billing inquiries and also a referral point for inter-departmental services such as Academic Advising and Career Counseling.

Vision and Mission

Our Director of the One Stop Service Center, Ms. Wanda LaLond, envisioned a place that would be the de facto location for students to receive all the services they needed to enroll and stay in school. Ms. LaLond understood that we needed to support the “service generation” of students that are used to comprehensive support technologies in the private sector.

She wanted the OSSC to provide the best customer services, operational cost savings, and vastly improved administrative operations through the use of an electronic queuing system, and the collection and utilization of queuing system data.

The queuing system as envisioned would be the missing link that would allow the efficient dispatching of requests to the service departments by creating multiple virtual queues. This would facilitate the elimination of lines – period.

Ms. Lalond requested the assistance of the Office of Converging Technologies (OCT), who assigned Markus Erndl, the Director of the OCT Project Management Office (PMO), to implement an efficient and comprehensive queuing service to support her vision.
**Business Requirements**

The One Stop Service Center (OSSC) should be the students first stop--more than likely, their only stop--for assistance on questions or problems they may have regarding financial aid, registration, student records, or student financials.

A customer service area representing the Office of the Registrar, Bursar, and Financial Aid, the OSSC is staffed with personnel who are cross-trained to handle questions from all three areas. Our experts can quickly assess the students’ problem or situation, and provide them with on the spot assistance or refer them to the appropriate resource for more information or processing. The OSSC provides support for Bursar Services, Financial Aid Services and Registrar Services.
During the planning of the One Stop Service Center the decision was made that this should be an efficient and pleasant service area that would provide our students with comprehensive solutions and a high level of customer service satisfaction.

To achieve these lofty goals the director developed and elaborated a clear set of goals, a description of the right technologies, and an insistence on SMART, well-defined policies and procedures for inter-departmental collaboration.

![Figure 2- Photo of the One Stop](image)

**New Business Process**

With the advent of the Nemo-Q queuing system (NQQS) we achieved the right queuing technology that could “seamlessly transfer students between departments and merge walk-in traffic with appointments to maximize efficiency”\(^2\).

The student selects categories and subcategories on the kiosks, which provides the representative insight into the student’s needs before they even reach the counter.

The information about what categories and subcategories students are requesting helps with and also allows the OSSC and the greater College community to

\(^2\) [http://www.nemo-q.com/education.html](http://www.nemo-q.com/education.html)
tailor communications with the student to clear up potential issues, and even change policies or procedures to assist students.

The information can also be useful to plan future resource needs and anticipate times of increased student service requests.

We now have the ability to accurately report the number of students served, how long it took to respond to their needs and what types of issues they needed help with.

Nemo-Q allows students to get a service request ticket the kiosks inside of the OSSC and then listen for voice announcements to direct the student to the right customer service representative.

Figure 3 - 2nd photo of the One Stop

**Additional Technology Components Extends Value of (NQQS)**

Ms. Lalond and Mr. Erndl took the service offerings to another level by implementing additional technology elements to facilitate the optimal customer service value:

**Sedna Digital Signage System & SharePoint**

By linking Nemo-Q with our existing Sedna Digital Signage system we were able
to display upcoming ticket numbers on 3 flat panel displays inside of the OSSC. This allows us to offer students a comfortable place to sit until their service ticket is called.

![Photo of the Digital Signs inside One Stop](image)

Figure 4 - Photo of the Digital Signs inside One Stop

This was accomplished by configuring the NemoQ system to save an XML file with the last six tickets in the queue to a location on one of our Sharepoint servers. We then configured Sharepoint to convert the XML file to an SharePoint HTML page. We then configured Sedna to display the URL of the HTML page as a frame in the Sedna digital display playlist for the One Stop.
Additionally, we publish the same HTML page to the 2 vertical flat panel displays outside of the OSSC, in the Dining Hall.

![Digital Signs](image)

**Figure 5 - Photo of the Digital Signs inside the Dining Hall**

This allows students to go to the dining hall and still keep track of their service ticket status. While in the Dining Hall they can take advantage of amenities such as dining, video wall viewing, digital signage content, vending, concert performances, QCard value loading stations and a comfortable study space.

**Mobile Web Page**

Mr. Angel Arcelay, our Director of Applications Development realized that the HTML page used by the digital signage system could also be rendered on mobile smartphone browsers. So he requested the encoding of a QR-code on the flat panel displays which resolves to the web page displaying the recently announced ticket numbers. This encoding of a QR Code on the Digital Signage LCD screens allows mobile
users to access the URL of the HTML page. This allowed students with mobile phones to check service ticket status. Students now gained the freedom to move further out onto the campus, such as the Corner Pocket gaming center, Q-TIPS Counter, Aaron Copland Music Building, the Quad, etc. and still know their place in the virtual queue.

Additionally, students can also use the QCMobile application to determine the hours of operation of the OSSC and other administrative offices.

Figure 6 - Photo of a Cell Phone Displaying the NemoQ Web Page
NemoQ Kiosk at nearby Help Desk

We deployed the queuing system at the nearby Help Desk as well, and integrated it into the OSSC queues. For instance, if a student enters the one stop and gets a ticket, only to realize after waiting and having their number called that they need assistance from our Help Desk, the student will be transferred to the Help desk queue at a point equal to the time they already waited to get called at the one stop, reducing the amount of time they need to wait for services.

Figure 7 - Photo of Help Desk NemoQ Kiosk
We also implemented the Ventus online appointment scheduling system. Ventus is an add-on application to NemoQ, which will allow the customer service representatives to schedule, edit and cancel appointments with administrative offices.

Figure 8 - Photo of the Ventus Appointment Screen
NemoQ Usage and Statistics Reporting System

Also, the implementation of the queuing system gives us valuable data that we can use to plan workloads, staffing levels, training, and correct any issues that would otherwise go unnoticed. This helps us to continuously improve our service offerings.

Planned Future Technology and Services: JoinMe and LiveChat

For instance, we have determined that the implementation of live chat, virtual meeting places, and screen sharing would improve the student support experience. So in phase 2 of our implementation we will install and train our support personnel on the use of JoinMe and LiveChat.

Hardware and Software Implemented and Repurposed

- Nemo-Q Queuing System
- Sedna Digital Signage System
- SharePoint Web Pages
- Cisco Wireless APs
- Ventus Online Scheduling System
- JoinMe (future)
- LiveChat (future)

Implementation Teams

- Business Process Owner: Wanda Lalond, One Stop Service Center Director
- Nemo-Q Deployment Project Manager: Markus Erndl, Director of the OCT PMO
- Room Construction, HVAC, Counters: Stephan Aiello, Director of Student Union Administration and Finance Office
- Enablement Team (s):
  - Office of Converging Technologies Sub-Groups
    - Help Desk: Jason Kong - Technical Lead and advisor
    - Web Services Group: Tony Ko - Developed the XML to HTML translator and the HTML page
o Digital Video Group: Bryan Chan - Management and Configuration of the Sedna Digital signage integration. Created QR Codes, installation of flat panel displays
o Telephone Services: Joe Gong & Buddy Sanichar – Network cabling, telephone and flat panel display installation, access point installation
o Network Infrastructure: Morris Altman, Yefim Magazanin, Sunny Chan
  – Network Switches and port configuration

• Buildings and Grounds - Electricians: Installation of necessary electrical circuits for displays and kiosks.