

University of Pretoria

AI-powered service desk and automation transform student experiences and ensure business continuity when crisis hits



Who is University of Pretoria?

The University of Pretoria (UP) is one of Africa's top universities and the largest university in South Africa. It produces socially impactful research to find solutions for the world's most pressing issues. With high quality teaching and learning in the classroom, online, or in communities, University of Pretoria hosts more than 132,000 students.

ITSM in Action: Supporting 132,000 People with Just 8 Service Agents

Though universities in South Africa are particularly resource-constrained, UP made an early decision to prioritize an investment in IT service

management (ITSM); a decision that has paid dividends over the years. When Charl Joubert, Change and Configuration Manager joined UP, he inherited a service desk and incident management solution. Through his association with ITIL, Joubert became a certified ITIL master and drove streamlined processes for the university in his capacity in ITS (Information Technology Services). "Through our longstanding partnership with OpenText™ we evolved our service model. Our first priority was to introduce a change management module so we were delighted when OpenText™ announced this. As new modules became available we opted in and OpenText™ SMAX was launched just at the right time for us." UP implemented the full stack of modules and were able to consolidate stand-alone solutions into SMAX, saving license and maintenance costs."

SMAX's embedded machine learning and process automation capabilities enable UP to support 132,000 end users (including current students, alumnis, and study applicants) with just eight dedicated service agents. "Machine learning and artificial intelligence (AI) were the driving force to include our student helpdesk in the SMAX architecture," says Joubert. "Students had been served with a separate tool and the ITSM team only directly supported our faculty staff and post-grad students, with six dedicated agents, delivering a higher touch

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Change and Configuration Manager
University of Pretoria



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At a Glance

- **Industry**
Education
- **Location**
South Africa
- **Challenge**
Support 132,000 users with restrained resources, while continually improving processes and onboarding non-IT departments for enhanced efficiency
- **Products and Services**
SMAX
Operations Orchestration (OO) with Robotic Process Automation (RPA)
Universal CMDB
Adoption Readiness Tool (ART)
- **Success Highlights**
 - + 11-fold increase in VPN requests managed through automated process, activated within an hour
 - + Machine learning and AI capabilities central to success in supporting 132,000 students
 - + SMAX efficiently managed a 60% increase in requests following COVID-19 constraints
 - + Rapid onboarding of non-IT departments to support students in crisis

support model. The value of machine learning is phenomenal in our student community, as evidenced by the wide use of our virtual agents and knowledge articles within SMAX. Without machine learning and AI there is absolutely no way we could support our end users with the few dedicated agents we have.”

Over the years, UP evaluated other OpenText™ IT Operations Management solutions carefully and, if found to be of value, introduced them into the existing architecture. OpenText™ Operations Orchestration (OO) started the whole journey of process automation. Today, OO enables all types of IT operation needs—from password resets to VPN access and student laptop sourcing. OpenText™ Universal CMDB assisted service modeling and visualization builds a complete understanding of how the UP infrastructure delivers business and IT services, helping resolve issues faster and avoid service downtime. UP currently has 1,800 Universal CMDB licenses and looks to increase this to cover 2,400 servers.

SMAX + OO—Rapid Response to COVID-19 Restrictions

The combination of SMAX and OO delivered tangible value during the recent COVID-19



pandemic. The university, like businesses around the world, quickly had to pivot to a remote working and learning environment for its staff and students. The first priority was to provide VPN access to everyone who needed this. “We saw our VPN requests increase 11-fold and thanks to SMAX and OO we defined, reviewed, published, and automated the VPN provisioning process within hours,” comments Joubert. “Users are granted VPN access in a few seconds, as soon as the request is approved.”

The OpenText™ Adoption Readiness Tool (ART) played a key role here. Joubert was quickly able to provide a step-by-step and ‘try me’ simulation-based tutorial on how to install and use VPN as well as many other service offerings. This was placed into SMAX as a knowledge article and the OO-driven VPN provisioning process directed users to it. ART has replaced internal IT training and is fully integrated with the university’s learning management system (LMS). Joubert comments: “The ART ‘show me, try me, and test me’ learning modules

have proved very successful for us. Eliminating one-to-one training saves approximately three months every year, our training is rolled out in three languages as part of our onboarding process, and our LMS gives us the metrics to track user adoption.”

Supporting Students with All Their Needs during Pandemic Crisis

COVID-19 is a formidable and unprecedented challenge for anyone, but especially universities where the migration to emergency remote learning has sharpened existing socio-economic fault lines in society. A number of universities struggle with this transition. This is mainly due to inadequate IT infrastructures, limited expertise for online teaching and learning methods, and the inability of universities to provide computers and data to students. Joubert is clear that having an enterprise service management architecture in place was a major help: “SMAX frankly saved the day when COVID-19 hit. The supporting structures for remote service delivery were quickly put in place

and we SMAX-onboarded facilities, security, and student administration departments, to support students who needed travel permits, data to access remote learning services, or even daily necessities to their accommodation as they were not allowed to travel back home. Our SMAX architecture tackled it all efficiently and effectively.”

Providing seamless VPN access was a good start in the COVID-19 crisis, but the university also had to support students who did not have laptops or devices that were conducive to distance learning. The South African government quickly put grants in place for universities to supply laptops to students in need. The UP IT team called upon SMAX and OO again, and included OO’s robotic process automation (RPA) capabilities. Creating a ‘shopping’ site that was directly linked to a courier service, they integrated SMAX, OO, and RPA capabilities to automate the process of ordering up to 400 laptops a day. The laptop vendors leveraged these capabilities to receive and send order information and arrange courier collection, straight to the students’ accommodations. The courier’s

proof of delivery was imported into SMAX’s asset management module, allowing the team to track exactly what device went to which student. Joubert was delighted: “This seamless process meant that many disadvantaged students with no means of accessing remote learning were up and running with a new laptop within just a couple of weeks. The process operated like clock work.”

Students can also apply for a data bundle if they do not have adequate connectivity—the cost of the bundle is covered by the university. Students navigate to the SMAX portal, locate the “data bundle” tile, and enter details that include the mobile service operator and the mobile number on which the data bundle will be loaded. OO transforms this information and sends it to the respective mobile operators.

Onboarding Non-IT Functions to SMAX and OO Automation

With the pandemic still causing much disruption to normal life, many non-IT university business units recognized the benefits of



leveraging SMAX and OO in delivering effective services to students, as Joubert explains: “18 months on from the start of the pandemic, our students and staff are still not allowed back on campus and we foresee that this situation may be ongoing into the new academic year. This caused challenges for departments who are used to dealing with students in person. We have created SMAX/OO workflows for our department of enrolment and student administration dealing with new and prospective students. We have also worked extensively with our libraries who found themselves having to digitize content to make it accessible to remote learning students. They can now apply through the SMAX portal to have certain content digitized. The workflow process triggers copyright approvals and the actual digitization process. The digitized content is then delivered through SMAX.”

The security department is also leveraging SMAX to manage students’ campus access, and the faculty of natural and agricultural sciences are now managing all student queries through SMAX. This single solution for service management has made it easier for IT to support and simpler for students who were already familiar with the SMAX interface.



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Adapting to a New Normal with Technology Support

Service request volumes have increased by 60 percent compared to previous years, with an average of more than 50,000 requests every month of which approximately 30% are via the virtual agent. With this in mind, and aware that the university is at an inflection point in its service delivery model, UP is accelerating its automation journey with RPA. RPA is ideal for automating legacy applications that lack web services or applications that are inaccessible due to security reasons, according to Joubert. RPA also helps automate applications that require complex integration and expensive skills. The UP team started RPA with a use case that would make a difference—automating the increasing volume of student laptop order requests. Here, an RPA robot facilitates the complex interaction with Peoplesoft. The RPA



robot reads a PDF form, extracts the necessary fields, and creates the order request in SMAX—just like a human would. “The OpenText™ RPA solution is an awesome new capability,” says Joubert. “The easy-to-use interface makes developing RPA workflows effortless. We look forward to expanding our use of RPA in the near future.”

Joubert concludes: “COVID-19 has polarized the world, especially in countries such as ours, and made us grateful for the ITSM investment that enabled us to adapt quickly to a new normal. We evaluate our IT investments annually as part of a normal process and OpenText™ comes out on top every year. We have built a mutually beneficial partnership where we have collaborated on new features by means of the Design Partnership programme as well as our involvement in the Customer Advisory Board. Our experience with OpenText™ has been great, and we look forward to our continued partnership.”

