

White Paper

Consolidating Switchboards in Higher Education

Explore trends, tactics, and solutions to address *your* school's evolving call management needs.



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Switchboards at colleges, universities, and other higher education institutions used to be the one vital link between students, faculty, and the world. But the role of the switchboard has changed significantly with the advent of ubiquitous cell phones, email, texting, Skype, and other communication channels. The result? These institutions need new tactics and solutions to meet the needs of students, family members, faculty, staff, and other constituencies. While it's important to support and enable new and emerging communication channels, the tried-and-true voice channel also requires careful reconsideration—and new strategies that balance high service levels with lower costs and improved efficiency.

Today's colleges and universities offer many different communications channels—a trend that has led to falling switchboard call loads as students, family, and faculty conduct school business via the web, email, mobile, and other channels. But exactly how much change has occurred? And how can schools respond to lower switchboard call loads while still ensuring high service levels?

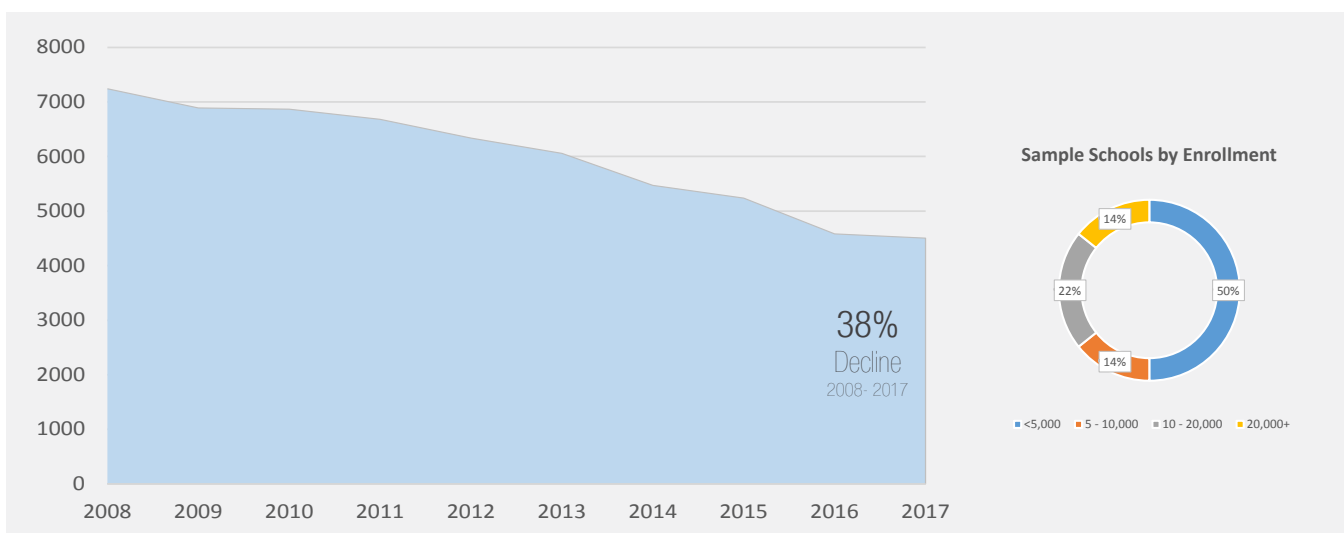
In this paper we'll examine the trends driving changes in higher education call management, the tactics many schools are employing to address them, and the supporting solutions many colleges and universities are deploying to enable more cost-effective call management services.

Learning from a Decade of Data

To put falling switchboard call loads in perspective, we examined inbound call loads from randomly selected Parlane higher education customers, ranging from small community colleges to one of the largest universities in the United States.

When we average the monthly call load by year across these schools, the downward trend in inbound calls over the past decade becomes clear.

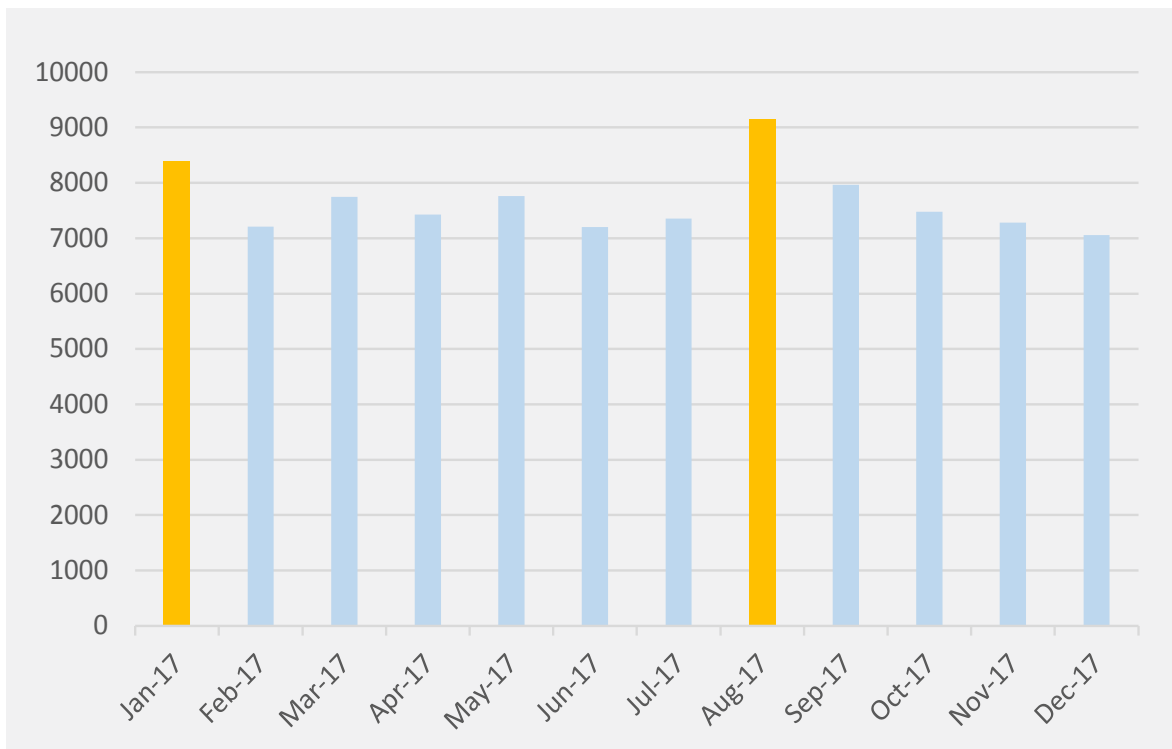
Average Monthly Call Load by Year 2008-2017



[Source: Parlane higher education customer data, 2008 - 2017]

A precipitous 38% drop in average annual call load is significant. But when we take a closer look, we can see that the drop isn't consistent throughout the year. If we calculate average monthly call loads at the sampled schools for 2017, we can see a sharp increase in switchboard call load activity in certain months—particularly at the beginning of each semester. What does this mean for call load management? It means that schools require the ability to manage seasonal call spikes—without necessarily adding staff.

Average Monthly Call Load 2017



[Source: Parlance higher education customer data, 2017]

Addressing Trends with New Tactics

Facing dropping call loads, many schools are finding it increasingly difficult to justify the ongoing cost of their switchboard infrastructure and staffing. Consolidation is the most suitable and effective tactic for schools that want to address drops in switchboard call load while still ensuring their ability to manage seasonal call load spikes efficiently.

The Service Desk, at Your Service

Luckily, higher education institutions already have an appropriate location to consolidate their switchboard services—one that already has the necessary call management infrastructure and resources, and that comes equipped with existing staff to manage public calls. Whether it is referred to as the *university service desk*, *IT help desk*, or another name, the basic function and role of this department is similar across most schools. The service desk coordinates reporting, tracking, and resolving of technology-related requests for students, staff, faculty, and other groups.

Increasingly, service desks are being asked to take on switchboard calls (sometimes called *directory* or *general information* calls). The goal? To reduce overall call management costs while ensuring sufficient coverage and accessibility for public callers. But this consolidation strategy creates new challenges.

One Department Performing Multiple Roles

It's important to remember that the service desk's primary function is to ensure that the day-to-day technology-related operations of an academic institution stay up and running. This general goal translates into a significant and diverse set of responsibilities—including assisting with password reset requests, helping users manage software applications and platforms, responding to WiFi and internet outages, and a thousand other technology-based needs. And when a technology crisis happens (e.g., an Internet or website outage), the service desk can get slammed with calls from internal and external callers who are unable to reach school resources or connect online. In short, the service desk already has its hands full—even more so during a crisis. Adding an entirely new dimension to their responsibilities without careful planning and consideration can negate any anticipated efficiencies and cost savings while adversely impacting both service desk and switchboard callers.

Let's examine the two roles and see how the different types of call loads add up.

	Service Desk Call	Switchboard/Directory Call
Request Type	Complex: filling a wide range of IT request needs, including network login credentials, new application/software support, network outages, hardware/software issues, and much more.	Simple: routine and common requests for driving directions, access to departments and faculty, general information on college services, admissions, and other resources.
Average Handle Time	10 minutes (can range from 5 to 30 minutes)	30 seconds (can be anywhere from 10 seconds to 3 minutes)
First Call Resolution	70% (~15% require followup/ call back activities)	99%
Post Call Work	5 minutes	Negligible

From a service level standpoint, it seems like adding switchboard calls wouldn't place an undue burden on the service desk. After all, switchboard calls can be handled quickly. They're usually resolved on the first call by providing the necessary information or transferring the caller to the correct destination. And there's typically no after-call work.

However, a potential issue emerges when you consider this fact—switchboard calls typically outnumber pure service desk calls at a ratio of 2 to 1.

To demonstrate the problem, let’s look to Erlang C, which many call centers use to determine the staffing levels they need to handle call loads.

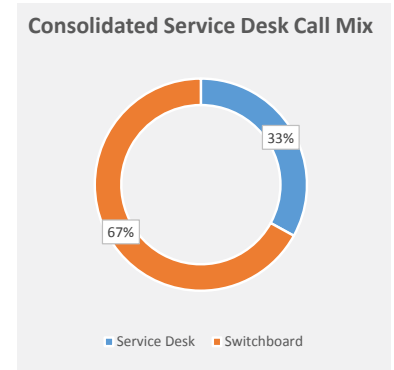
Calculating Consolidated Staffing Impact

Assumptions

- 20 business days per month
- Single 8-hour shift
- Busiest periods: late morning to early afternoon
- Service level Target: 80% answered in 20 seconds

Call Loads

- **Monthly Service Desk Calls:** 2500 (at an average of 10 minutes each, with 5 minutes of after-call work)—divided by 20 = 125 per day
- **Switchboard Calls:** 5000 (at an average of 30 seconds each)—divided by 20 = 250 per day



Erlang C Results - Daily Service Desk Calls (125)	
Maximum Calls per Hour	20
Call Duration (s)	900
Avg. Delay (s)	20
Agents Required	9

Erlang C Results - Daily Switchboard Calls (250)	
Maximum Calls per Hour	50
Call Duration (s)	30
Avg. Delay (s)	20
Agents Required	2

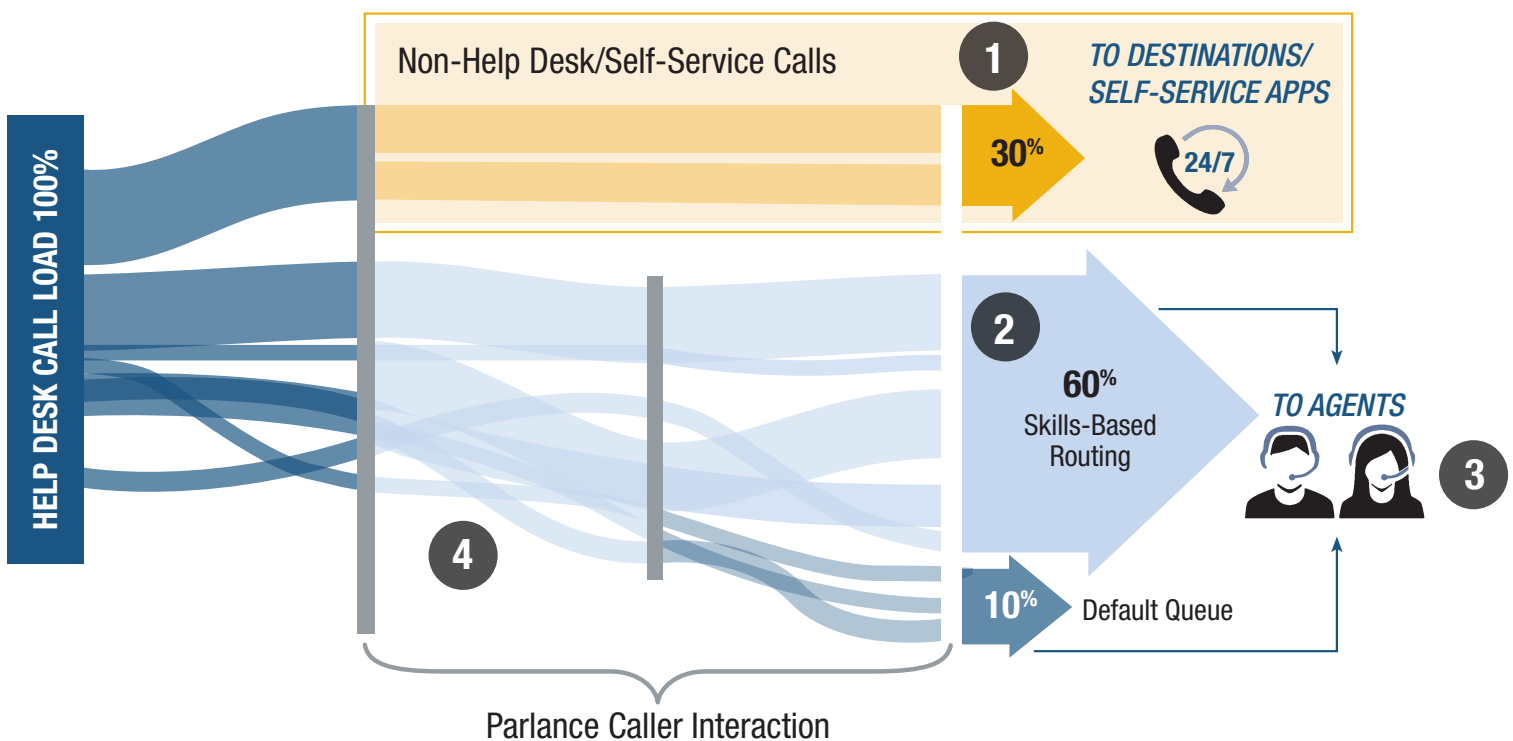
As this example shows, it would require 9 agents to manage the service desk call load, with an additional 2 agents required to handle the switchboard/directory calls. It’s clear that simply passing the staffing burden on to the service desk will fail to achieve the underlying objectives of consolidation—reducing the cost of call management while ensuring prompt service for callers. If a school adds staff to handle the increased call loads, it will not achieve the goal of cost reduction. But if it doesn’t add staff, call queues will back up and hold times will increase. Callers will experience insufficient call management capacity as frustration, delays, and poor experiences. Meanwhile, agents will also suffer. After all, increased call load, less down time, and more pressure to quickly handle more calls will reduce morale and raise stress—potentially triggering more turnover.

So how can the university consolidate switchboard and service desk call management services and ensure availability—all while achieving staffing savings?

The Power of Speech Automation

Many colleges and universities are turning to speech automation to solve the consolidation dilemma. Some speech automation solutions—such as those available from Parlance—deliver responsive self-service capabilities that automate a majority of switchboard connection requests, as well as some routine service desk needs. Speech automation can be fast and simple for callers to use and yields high levels of caller engagement. It responds to the needs of the caller in a natural and intuitive manner—connecting callers to the most appropriate destination or service desk agent, reading back common information requests, assisting with password reset requests, and more. These powerful solutions deliver a pleasant, positive caller experience that doesn't rely on outdated interactive voice response (IVR) menus or frustrating automated attendant instructions.

Speech Automation Impact - Service Desk Calls



The powerful benefits of speech automation in the university service desk align well with the cost reduction and service availability goals of consolidation efforts:

- 1. Automating the Process.** Speech automation provides the initial greeting and caller interaction that determine the caller's intent, and automatically connects calls that don't require service desk assistance (e.g., switchboard/directory calls, often 30% of call load) to alternate service lines, destinations, or employees—and away from agents. Callers make their requests naturally, interacting with the solution as they would with a live agent. The solution adapts to the caller's input to deliver a comfortable and intuitive experience, an experience that is far removed from that of IVRs or automated attendants. Service desk callers requiring assistance that may be available from other self-service solutions or online knowledge bases (password reset, Microsoft Office usage, other tasks) are guided to the appropriate resource. They can be assisted in conducting their password reset process or can be read back knowledge base information.

2. **Routing Callers to the Right Resource.** Speech automation solutions help steer callers to the most appropriate agent, tier, or skill in the service desk at rates of up to 60% of total call load without the annoyance and frustration of interactive voice response (IVR) menus. Callers don't have to waste time and effort. They don't have to repeat themselves to multiple agents. They don't have to endure multiple transfers to get to the right person. Speech self-service guides them to the right resource the first time—saving time for the caller and the agent.
3. **Resolving Calls Quickly.** By deflecting switchboard/directory calls and common self-service requests away from agents and by guiding callers to the appropriate resource, speech automation can reduce the number of calls in the support queue. Reducing overall call load means that agents no longer have to race through calls and interactions in order to take the next call in the queue. Greater freedom and availability means they are able to patiently service each call—improving first call resolution (FCR) metrics and reducing caller effort.
4. **Improving the Overall Process.** Qualified speech automation providers can analyze your caller engagements to better understand your caller communities and call management processes and identify additional improvement areas. Proactive call analysis and deep reporting capabilities help uncover pain points or caller roadblocks that can often remain hidden when looking at statistics alone. Digging deep into your call management and actually listening to calls—as only Parlance does—can help understand caller behavior, the needs and wants of your callers, and identify opportunities to improve the caller experience and increase service desk efficiency.

Measuring Speech Automation Impact

To put the impact and improvements in perspective, let's look at the Erlang call management calculations again.

Assumptions

- 20 business days per month
- Single 8-hour shift
- Busiest periods: late morning to early afternoon
- Service level Target: 80% answered in 20 seconds
- Automation Skills-Based Routing Impact: 25% reduction in AHT for service desk calls
- Automation FCR Impact: Lower service desk call load, reduced after-call work (5%)

Call Loads

- **Monthly Service Desk Calls:** 1875 (2500 minus 20% automation offload + 5% FCR impact at an average of 7.5 minutes each, with 4.75 minutes of after-call work)—divided by 20 = 94 per day
- **Switchboard Calls:** 2000 (5000 minus 60% automation offload at an average of 30 seconds each)—divided by 20 = 100 per day

Erlang C Results - Daily Service Desk Calls (94)	
Maximum Calls per Hour	15
Call Duration (s)	735
Avg. Delay (s)	20
Agents Required	7

Erlang C Results - Daily Switchboard Calls (100)	
Maximum Calls per Hour	15
Call Duration (s)	30
Avg. Delay (s)	20
Agents Required	1

Using Erlang to calculate the new staffing requirements with speech automation in place shows major improvements. The cumulative benefits of deflection, skills-based routing, and first-call resolution reduce the number of agents required to manage service desk calls from 9 down to 7. Speech automation also reduces the number of agents needed to manage switchboard calls from 2 down to 1. In all, this example shows a total staffing reduction of 3 seats.

The benefits of speech automation are not confined to this one example, which examines average baseline call loads. The advantages of speech automation scale with incoming calls, even during periods or moments of heavy call loads—such as the critical periods before a new semester, before graduation, and other peak calling times.

While the staffing requirements for those periods may be slightly higher than periods of average volume, the overall reduction in agents due to speech automation offload should remain constant—2 less agents for service desk calls, 1 less agent for switchboard calls.

It's Time to Rethink Call Management

The call management requirements of colleges and universities have changed dramatically during the last decade. In the face of a nearly 40% decline in inbound switchboard/directory calls, many schools are reexamining their switchboard operations and implementing new strategies to reduce costs while remaining responsive to seasonal call load demands.

Service desk consolidation is becoming an increasingly common tactic to address these dynamics. But without a solid strategy to improve efficiency, the goals of cost reduction and high service levels can be elusive.

Speech Automation Gets High Marks from Higher Ed

Speech automation can deliver the necessary efficiencies higher education service desks require to help control costs and maintain pace with the different types of inbound calls—service desk and switchboard. With natural and intuitive interaction and high levels of engagement, speech automation delivers performance and impact that far exceeds other automated solutions, such as interactive voice response (IVR). And with broader impact and benefits across multiple areas, speech automation helps alleviate the additional service desk burden of managing switchboard calls—all while improving the efficiency of managing service desk calls.

What lessons have today's forward-thinking colleges and universities learned by rethinking call management?

Speech automation solutions lower the cost of service delivery for switchboard and service desk calls, improve service desk efficiency, and create a better caller (and agent) experience.

About Parlance

Parlance uses analytics and adaptive speech automation to get callers to the right place in a organization without the effort and frustration of endless menus, auto attendants, and hold queues. Delivered as a managed service, Parlance solutions are unequalled in their ability to reduce costs, increase operational efficiency, and improve the caller experience.



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