

Let's call the circus company in question Circusfoo. Circusfoo is a new traveling circus company, with several different departments, but whose core focus and skills are to entertain audiences in the US and Canada with human (largely consisting of clowns!) and animal performances.

Circusfoo's core competency is traveling entertainment. Maintaining a fleet of vehicles, erecting tents, collecting tickets, maintaining a concession stand, and ultimately putting on an engaging performance is both time consuming and costly. Any time and money spent managing anything outside their purview (as in IT infrastructure) could be a disadvantage compared to their main competitor (who goes by the name of Circusbar). Nonetheless, clowns need to be paid, advertising campaigns need to be run, and a small customer service department will be required to deal with customer issues. There will likely be a small permanent office space for Circusfoo's marketing, HR, Marketing, and Customer Service departments to deal with issues too inconvenient for traveling clowns to handle.

Because a large part of the business is on the road, and because most of the business's applications needs are fairly standard, Circusfoo should rely on a cloud SaaS service model whenever possible (bringing a server farm on the road doesn't make a lot of sense). Maintaining email and dns servers (and likely a vpn concentrator for security) inside the permanent office is also, likely unnecessary. Instead it would make more sense for email and other productivity suites (gsuite/office365) to be handled by a SaaS solution accessed by the browsers on phones or laptops. If the clowns need to communicate a last minute change to the performance to each other, a SaaS messaging application (slack/ms teams) could be used.

The needs of the HR department are fairly standard compared to other businesses, so most available cloud SaaS solutions should cover most if not all of Circusfoo's needs. Cutting and mailing checks to traveling clown employees would be a nuisance, so the HR/payroll system would need to have direct deposit capabilities. The HR department would likely need to contract with an international healthcare provider to insure that clowns are covered no matter what state they are in in the US or what province they are in Canada. Due to the specific skills of most clowns, and due to the potentially complicated and expensive nature of providing healthcare to traveling clowns in multiple states and countries, it may actually make more sense for some of these clowns to be contract workers (instead of full time). The SaaS HR solution would need to have the ability to track both employees and contractors. If for some odd reason, that functionality was absent from a SaaS cloud solution, an alternative solution might be running quickbooks on an IaaS solution, or if custom coding was required perhaps running that custom

code on PaaS might make sense.

Selling, collecting, and verifying tickets could also be performed with a SaaS solution. Most concert halls and venues today could use a SaaS solution (like Eventbrite) to manage ticket sales. Circusfoo's staff, either from in the office or from on the road can setup up upcoming performance dates using a browser. At the circus tent or venue, a phone equipped with a data connection and bar code scanner could verify a ticket for authenticity. Same day ticket sales and order from the concession could be performed with a phone and card reader and use the same SaaS solution. If a more customized solution was required, if for instance, circusfoo's circus tent had the ability to expand dynamically for performances in larger cities, or if various pricing tiers of seating proved too complicated for a SaaS solution, one alternative might be writing some custom code for a PaaS cloud service.

Concession stand purchases could also use a SaaS solution (like square or PayPal) to take credit card payments and issue physical or email receipts to the customer.

Circusfoo's marketing and advertising departments should use a SaaS solution as well. Circusfoo's marketing and advertising staff should be as connected as possible to their customers to understand why they attend (or do not attend) a circus performance. It might make sense that Circusfoo has a member of the marketing staff travel with the circus caravan to interact directly with the customers and get feedback to potentially make improvements to the business. Because the CRM SaaS application lives out on the internet, it would give both the traveling marketer and the marketing staff back at the office a near identical user experience. A SaaS application (along with cellular data networks) is ideal for traveling staff. If the circus caravan breaks down at 1am and performance dates need to be delayed, traveling staff could make changes to the advertising campaign in near real time, instead of having to inform the main office of changes and have them make updates when they arrive to the office the next morning.

Customer service issues could use a SaaS solution. This solution would need to make sure that customer requests are tracked, followed up on, and the issue ultimately resolved. The system may need internal tracking features that give a smaller subset of circusfoo's customer service staff to perform refunds or other customer credits. A SaaS solution (like zendesk) could be used to minimize any infrastructure in the office space or in the traveling caravan and to accurately track, and escalate customer issues. If the cost of maintaining a SaaS ticketing solution from a potentially pricey SaaS vendor is too high, perhaps an alternative would be running any one of the available open source ticketing systems on an IaaS cloud service. Ideally the IaaS instance would be powered off at the end of the day to save compute costs while the office is empty. If the network connection

to the IaaS application were too slow, and if the entirety of the customer service department was located in the office, and the customer service demands are very static and predictable, and the office staff just so happened to be equipped with some basic technical skills, it may be cheaper in extreme long run (over multiple years) to purchase a server and run the same free open source application on-prem. (<—should be noted that I don't think on-prem is a really a great idea. Playing devil's advocate to some degree here to demonstrate understanding of cloud vs. on-prem pros/cons)

To summarize, various cloud SaaS solutions should be used by Circusfoo whenever possible.