

"My staff are constantly on the phone to the Press or other media companies, I need a system to automatically take and distribute incoming calls!"

— **Kelly Doran,**
Managing Director,
FunkyFish-PR Ltd

Case Study: Using Open Source Solutions to provide sophisticated call management for a PR company

Summary

A busy city centre PR company needed sophisticated call management functionality to improve work efficiency.

FunkyFish-PR employs four creative staff, none are technical and the company has no technical in-house resource. The Account Execs are constantly using the phone and incoming calls are being missed or not attended to quickly enough.

FunkyFish-PR, based in Manchester city centre, provide bespoke event management and PR services to the leisure and charity sector. The managing director was finding that her creative consultants were not able to service inbound calls in a satisfactory manner.

It was time to look at a more creative and less constrictive solution than simply employing a permanent receptionist, also the cost was prohibitive. Also as there was no in-house technical resource the solution required remote administration and management. ALL-Networks provided a digital solution based on the Open Source Asterisk softpbx. Asterisk in one package provided IVR, VoiceMail, MoH and Queue Management, and more business line numbers at a fraction of the cost a more traditional Cisco or Avaya solution. An added advantage was that outbound calls could be made for free.

FunkyFish-PR Ltd chose ALL-Networks due to their experience in supporting companies in SME market place and because the solutions provided are cost effective, ultra reliable, scalable, no tie-ins to a particular vendors' technology, license free and easily maintained and administered remotely.

Customer Profile

FunkyFish-PR Ltd is a well established, dynamic PR agency based in the city centre of Manchester, England, whose main area of business is providing event management, invite lists, marketing and PR.

The company employs creatives to develop events ideas and PR campaigns. Much of the daily workload is focused around calling the Press and media companies, organizing photo-shoots, and writing advertorial copy. However FunkyFish-PR also provide out sourced PR services, acting as the PR department for a well known chain of restaurants and bars. This means that the FunkyFish-PR is also receiving many calls on behalf of the restaurant chain.

Main Issue: Company required an intelligent call management system to filter inbound calls effectively. The system must be easily maintainable and be supported remotely.

“My call costs are too high, I have broadband can I get free or cheap calls.”

— **Kelly Doran,**
Managing Director,
FunkyFish-PR Ltd

Problem

Context

The company, like so many other SMEs, is dependant upon its staff being able to prioritise their workload effectively. However the nature of business meant staff were answering calls from the general public wanting general information about a well know restaurant and bar chain. Although these calls were important it was felt that most of the information could be provided via a recorded message system, such as restaurant locations, events and contact details. Also the current telephone system did not provide a voicemail system and so unanswered calls were being lost. Therefore a voicemail system needed to be part of the solution.

FunkyFish-PR also makes many outbound calls which were not capable of being monitored, either for their call length or destination. Call logging functionality was also required as well as the ability to use cheap call rates provided by VoIP suppliers.

A major problem was that traditional solutions would require bolt on packages,

for example, a PBX would be required, which would then require a Voicemail system to be added, then an IVR module and so. Technically the problem was exacerbated by having to integrate different modules/hardware into the solution. It became clear that the problem could not be solved by traditional solutions and that even solutions offered by Cisco and Avaya were not suitable due to their complexity and cost.

Objectives

The challenge for ALL-Networks was to provide a solution that provided a feature rich call management system using off-the-shelf hardware and software, was ultra reliable, maintenance free (from the perspective of the customer), scalable/future proof without adding extra cost, plug and play in terms of adding new handsets. Also it was important that the solution provided secure remote access to the system so that the system could be remotely administered.

Finding the Right Partner

FunkyFish-PR felt the Open Source solution provided by ALL-Networks, showed that ALL-Networks understood the key issues and concerns. The solution provided was cost effective and future proof. The ability of ALL-Networks to monitor and manage the solution remotely was essential.

Solution

Process

Having understood the issues and key concerns, it was clear that an Open Source solution was required. The basic idea behind open source is very simple: When programmers can read, redistribute, and modify the source code for a piece of software, the software evolves. People improve it, people adapt it, and people fix bugs. And this can happen at a speed that, if one is used to the

slow pace of conventional software development, seems astonishing.

This rapid evolutionary process produces better software than the traditional closed model, in which only a very few programmers can see the source and everybody else must blindly use an opaque block of bits.

Open source software is an idea whose time has finally come. For twenty years it has been building momentum in the technical cultures that built the Internet and the World Wide Web. Now it's breaking out into the commercial world, and that's changing all the rules.

The scale of development has led to literally hundreds of distributions of Enterprise Class Server Operating Systems based on Linux so it is possible to literally pick an off the shelf solution, download it and try before you buy to ensure the solution is the correct one. Of course as the distribution is Open Source it is freely distributable and so the cost saving is passed directly to the customer.

To provide a solution was a case of looking at the features offered by a particular distribution and choosing the best fit. For this particular situation the server of choice was the E-Smith SME7 distribution (based on RedHat EL4) and was chosen for its ease of maintenance and administration via a simple web-based GUI, and its rich feature set, providing built in secure web services, Remote Access via PPTP and MySQL database. The distribution also has a very stable support community and has many add-ons available. The application software chosen was Asterisk which is a feature rich Open Source soft-pbx, using MYSQL as its database. In order to keep the costs of the solution down, the handsets were replaced by free Open Source soft-phones with headsets. No new software on the client workstations was required.

Asterisk provided all the functionality required with excellent call quality. Its diverse hardware integration ensured that any handset could be used (even Cisco's proprietary SCCP handsets). Enabling trunks was straight forward using Open Standards SIP, allowing free or low cost calls to be made within the UK or worldwide. Call routes were programmed to take advantage of least cost routing schemes available from various SIP providers. Asterisk's Digital Receptionist feature allowed calls to be handled with intelligence, even allowing calls to be forwarded to other land lines or mobiles as well as the IVR queues. Recording

IVR information was straight forward and simple using the soft-phone software.

As the solution was built up the E-Smith SME7 distribution, ALL-Networks was also able to provide FunkyFish-PR with a new server package including file, remote access to company data, printer sharing and webmail. This was integrated with the asterisk server so that voicemail could be emailed to a person if they were not in the office, a useful feature for the managing director.

The system was scalable from 1 – unlimited number of IP phones in terms of licenses (with more traditional solutions such Cisco or Avaya solutions each handset requires a license). In order to ensure good quality speech, the hardware was designed to handle 20 handsets allowing the system to be scalable by a factor of four without needing to increase the performance of the hardware, therefore making the system future proof. If more handsets were required in the future then only the hardware would need to be upgraded (as the hardware is off-the-shelf then the cost would be minimal), the software would never require any upgrading.

Using the Solution to Solve the Problem

Having completed the research phase by identifying the correct software required, the system was built and tested off-site to minimize the impact to the customer. FunkyFish-PR supplied a request dial plan so that the system could be programmed with the correct extension numbers and a rudimentary IVR system was put in place so that pre-recorded information could be played to callers. The IVR system is still evolving as new uses are required by the client. All configuration changes to the system are performed remotely and securely using VPN PPTP tunnels.

Technologies and Delivery Method

Technology used in the solutions was all Open Source derived, based on the Redhat EL4 Linux distribution. The time frame of building, testing, and implementing the solution was three days, with half a day of training. Administration is performed remotely.

Key Components

List the technologies used on the implementation, for example:

Software

E-smith SME7 Enterprise Server 4.0

MYSQL Server

APACHE Web Server

EMAIL SERVER Qmail

WEBMAIL SERVER Horde

OPENSSL VPN Server

Asterisk Soft-Pbx Server

CLAMAV Anti Virus Server

"We are delighted with the system, it gives us so much freedom in how we chose to deal with our calls..."

"I don't think we have missed an important call since the system was installed!"

**— Kelly Doran,
Managing Director,
FunkyFish-PR Ltd**

Evaluation

Results and Benefits

The implemented Open Source solution has improved the perceived customer service quality by efficiently and intelligently handling large call volumes. The system provides free outbound calls and so reduces overhead costs. The system's reliability has been proved to be high, at this point the users of the system have to date not reported any downtime at all. The system has been 100% available and there have been no logged support calls. The system can be extended in the future so that staff can work from home and their extension numbers follow them.

The outsourcing has completely removed the requirement for any in-house technical expertise. Outsource cost £2k per annum (or £7 a day) covers day to day administration to bare metal restore. Typical cost of server/network administrator £20K per annum.

Saving on software – 100%

Saving in hardware - 75%

Yearly running costs – 75%

For More Information

For more information about ALL-Networks products and services, call ALL-Networks at +44 (0)161 660 8178

To access information using the World Wide Web, go to:
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