



COLEG Sir Benfro
Pembroke College

Using the Janet Telephony Framework – a user experience

Matthew Marl
IT Manager
Pembroke College



The Infrastructure

- Cisco Call manager (v7) PBX (private branch exchange)
- Old Cisco 2600 router as ISDN gateway
- Cisco/Juniper network
- 30 ISDN channels with 500 DDI

The idea

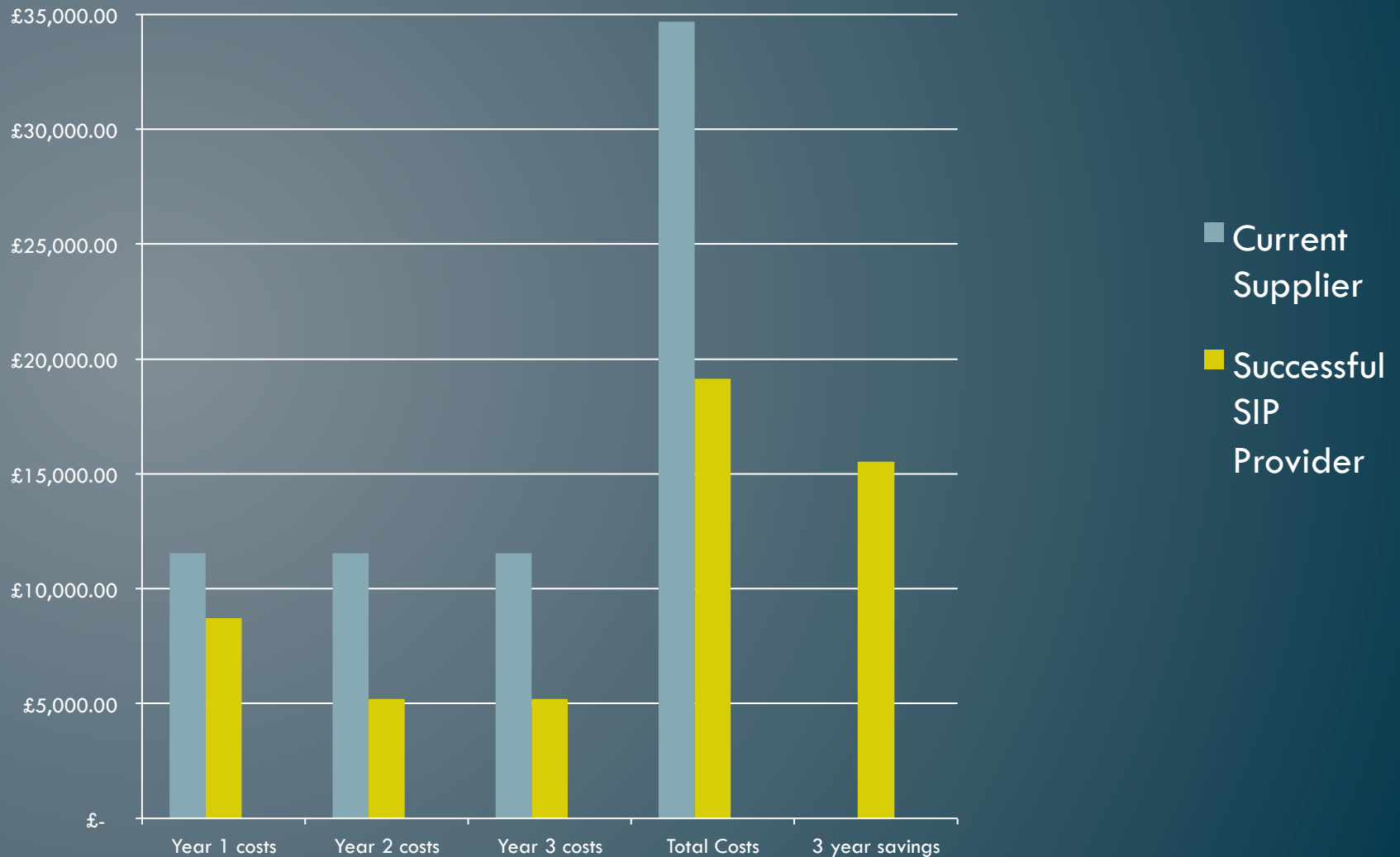
- Evaluate the cost savings offered by utilising SIP channels
- If viable, analyse costs of upgrading existing telephony gateway to support SIP traffic
 - In our case we had a very old gateway. Cost projection included a new Cisco 2900 CUBE (Cisco Unified Border Element), installed & commissioned, with ongoing annual maintenance costs

The potential savings

Original Provider	SIP Provider
Cost of 30 ISDN channels and 500 DDI numbers	Cost of 30 SIP channels and 500 DDI numbers
£540 per month	£150 per month
	Much cheaper mobile and national calls

Telephony comparison

(based on previous 12 months call levels)



The Procurement Experience

- Pre-JANET framework
 - Received outline pricing in January 2013
 - Still exploring traditional procurement route by May 2013



The Procurement Experience cont.

- Post-JANET framework
 - Wrote specification and forwarded to JANET
 - They checked and made minor amendments
 - JANET drafted a Simplified Contract Notice and launched the mini-competition
 - Queries regarding the procurement were handled by JANET (mainly regarding eligibility)
 - Technical queries were forwarded to me
 - STRAIGHT-FORWARD, AUDITABLE PROCESS

Resilience and Disaster Recovery

- Pembrokeshire College only has a single JANET connection, so no point in paying for redundancy in the SIP trunks (approx 60% additional cost in trunk rental)
- Purchased single number Disaster Recovery for calls to reception £16.99 per month, web management interface

Quality of Service

- Must configure QoS on the network
 - Pembroke College has integrated traditional data and iSCSI network, very congested, but no issues with IP Telephony due to QoS configuration
- Dedicated firewall interface
 - Pembroke College has a 20 port Fortigate with two additional accelerated ports. Added the SIP Telephony to pre-existing Videoconferencing interface (on accelerated port)

The Switchover

- Allow plenty of time, BT OpenReach have a 21 working day turnaround, which can be longer at busy times!!
- Make sure your Firewall doesn't groom the SIP packets – ours did, and it took a while to diagnose it!
- Otherwise smooth, no QoS issues (this is what gave me sleepless nights beforehand)

Next step

- Review college owned mobile telephones at end of contract to ascertain savings by moving them to the SIP provider – free college extension to college owned mobile calls?

THANKYOU!

- Any questions??