

Understanding Complex Weather Patterns utilising the power of a Z80a processor

### Universities sharing an IT Service

The UPS and DOWNS



Nathan Prisk Head of IT Services



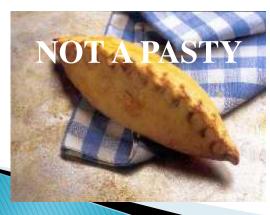
## Agenda:

- A bit of history
- The campus
- Timeline
- Falmouth Area Network 2004
- Network Issues Trusts –VPN PBR- AD
- Falmouth Area Network 2014
- Technical problems LDAP, Video conferencing, Phone systems
- Political problems 2 Unis 5 campuses timetabling
- Software licencing Microsoft Campus, Oracle.
   Adobe, Willey Databases. IP based services
- Questions



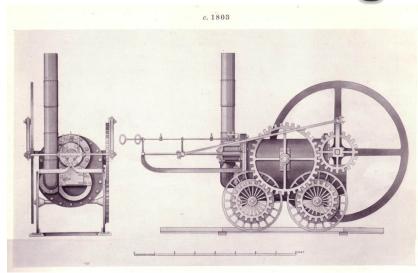
## THE CORNISH PASTY (A RESUME)





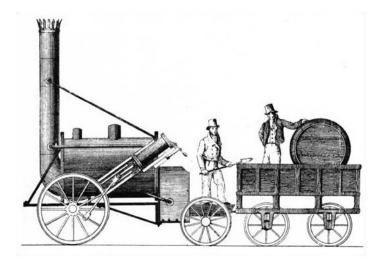


### The steam engine



Richard Trevithick 1804-5

Cornish!

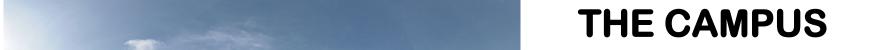


Robert Stephenson 1829

Not Cornish!

### A Bit of history and introduction

- 6 First line staff which include IT suite support
- 12 Second Line Technicians
- 4 Infrastructure (networks, phones, AD, Lync and Exchange)
- 8 Data Architecture (MIS, Oracle, SQL, Vmware, Sharepoint, Backup, SCCM)
- 4 Heads of Dept and 1 Director
- Across 2 campuses
- Supporting 1000 staff and 5000 students
- Currently 92 Service level agreements on stuff that we support (not including applications)
- Challenges Large scale IT suites, Procurement, Depth of support, Data security



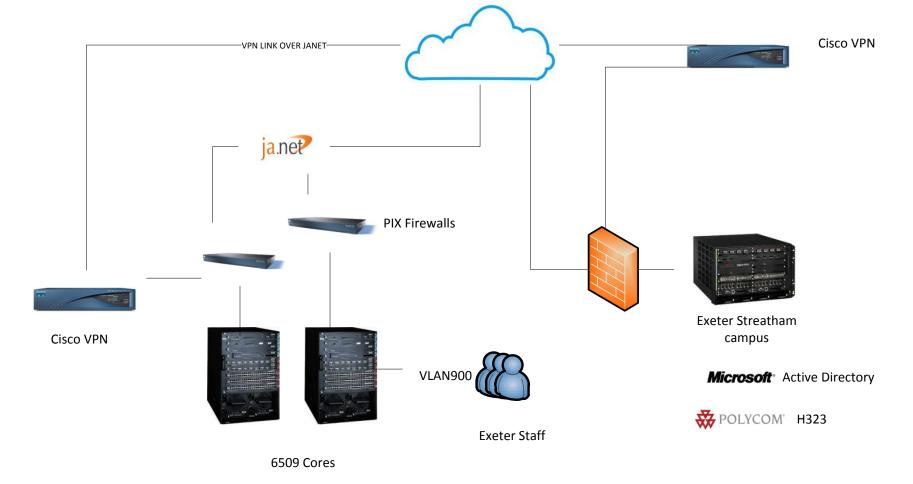


#### **Timeline**

- ▶ 1999 Falmouth University buys Tremough Campus
- 2000 Falmouth University buys into Cisco and adopts VoIP (Call Manager 3)
- 2002 Agreement to share Campus between Falmouth and Exeter (Planning begins)
- 2003 First phase of new campus delivered including residences
- 2004 Shared campus is opened with Exeter Staff & Students joining Falmouth
- 2008 More shared buildings delivered and more residences
- 2012 ESI Exeter specific building, AIR Falmouth specific and joint Library extension
- ▶ 2014 New research centre for Exeter



THE CAMPUS in 2009



Tremough now Penryn Campus

#### The Network in 2004

## Network Issues Trusts - VPN - PBR- AD

IP addresses 144.x.x.x

Database Providers like Willey secure by IP range

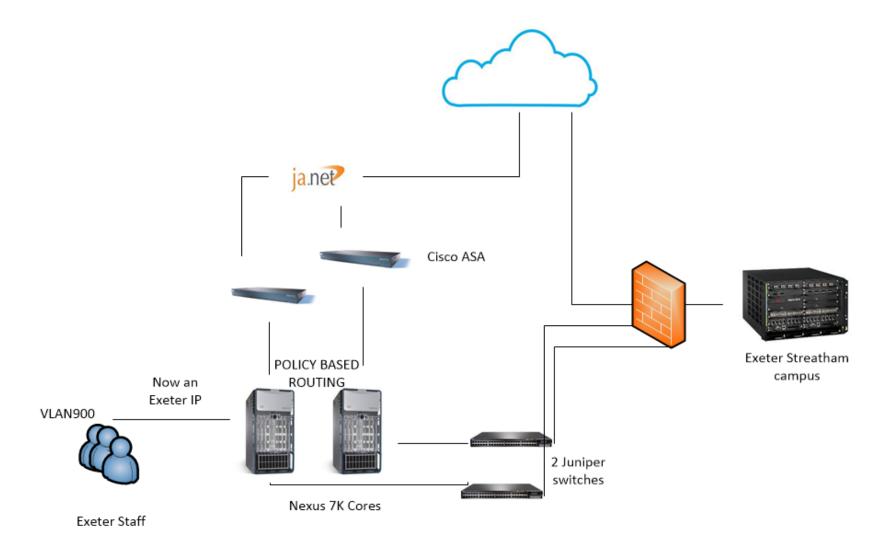
VPN was setup via two Cisco VPN concentrators to create a link between Falmouth & Exeter

However...(There are lots of howevers in the presentation!)

VPN by design encrypts data which is fine however (told you) it is far from ideal for heavily compressed traffic eg Video Conferencing which was a large part of the delievery for a number of courses

Active directory was also impacted by not having any local AD controllers, slow logons and timeouts being quite common

These last two issues forced a rethink



Tremough now Penryn Campus

## The Network in 2014

## Network Issues Trusts - VPN - PBR- AD

Scenario 1. Falmouth student/staff look at <a href="https://www.exeter.ac.uk">www.exeter.ac.uk</a>

Scenario 2. Exeter Staff on VLAN 900 look at www.exeter.ac.uk

Scenario 3. Resnet Traffic - Treated as inbound traffic

All ok for now!

However....

Scenario 2. Has some options based on another destination. le Voyager.

What about Exeter students on the ResNET? – Unfortunately it is not possible without the use of 802.1X and dynamic VLAN allocation technology to redirect UEC students to the Exeter LES Circuit.

# Network Issues Trusts - VPN - PBR- AD

Active directory trusts or Who trusts whom!

LDAPS / Group policy to disable

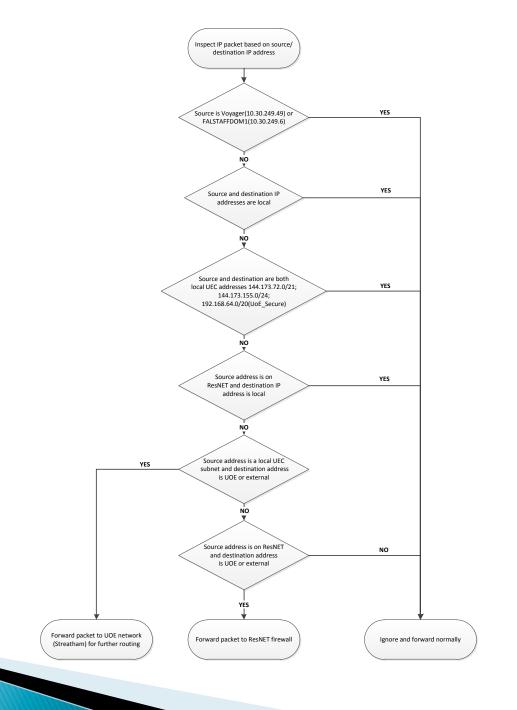
Lync/OCS

### Political problems

2 Universities with 5 campuses timetabling

#### Software licencing

Microsoft Campus, Oracle. Adobe, Willey Databases. IP based services



### Questions?