# Kerberos & eDirectory integration

Bridget Lewis

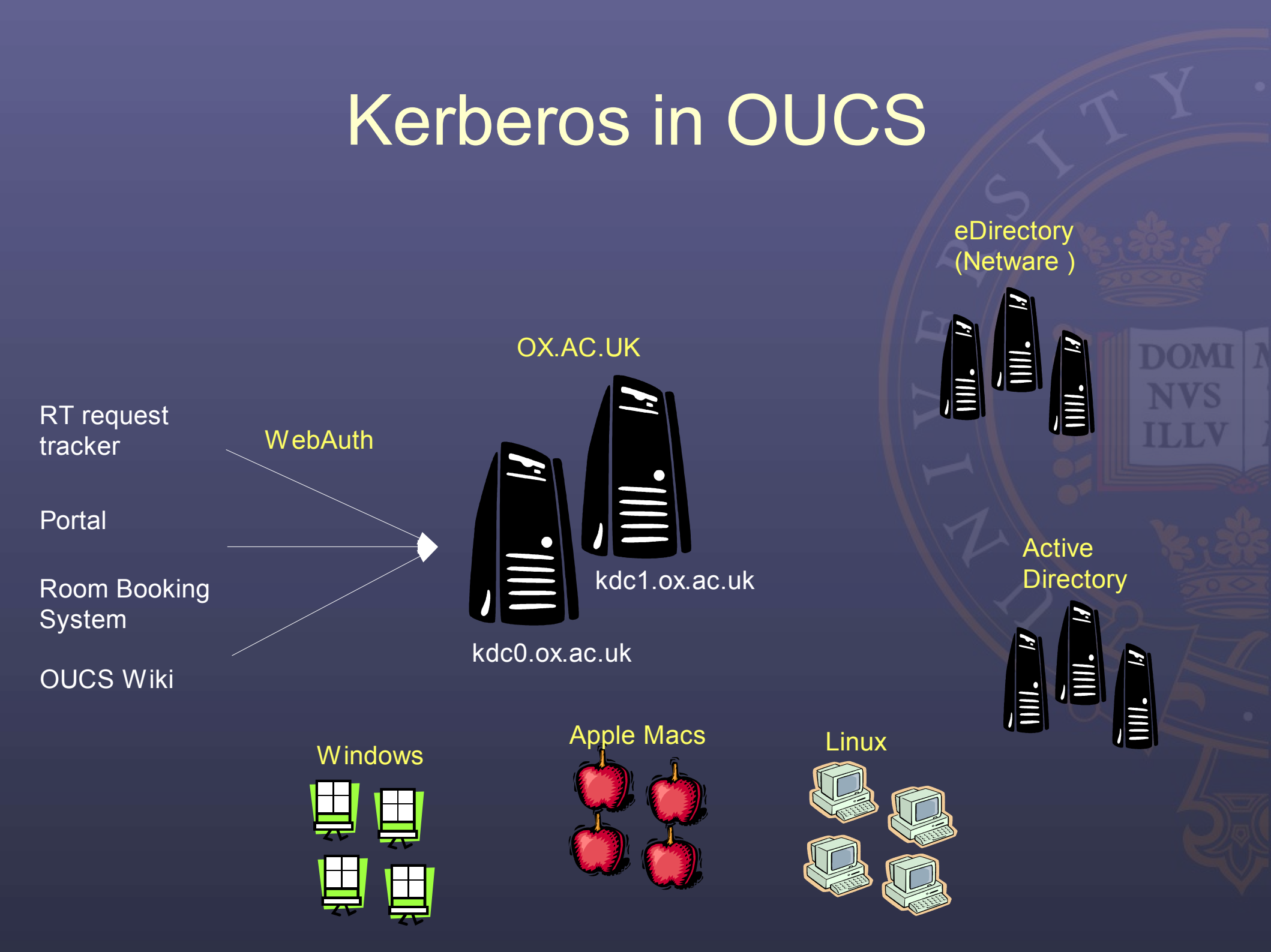
# Agenda

- Background
- Aims
- Technical Details
- Demo
- Caveats
- Futures

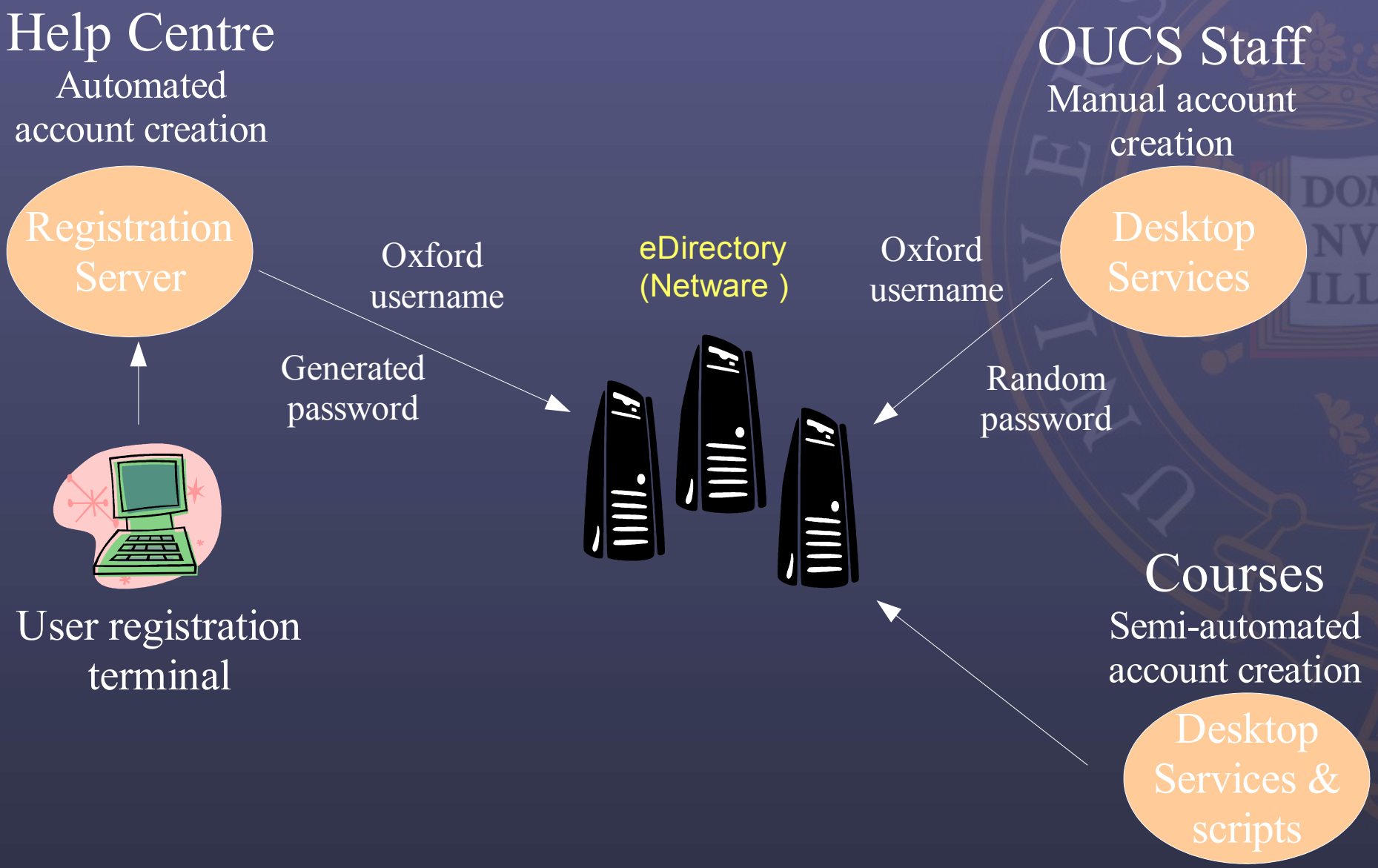
# Agenda

- Background
  - Kerberos in OUCS
    - WebAuth
  - Netware in OUCS
- Aims
- Technical Considerations
- Demo
- Futures

# Kerberos in OUCS



# Netware in OUCS



# Agenda

- Background
- Aims
- Technical Details
- Demo
- Caveats
- Futures

# Aims

- Allow users to authenticate to in-house services via Oxford username and Kerberos password
- Automatically provision eDirectory
- Investigate options which may help ITSS in departments and colleges

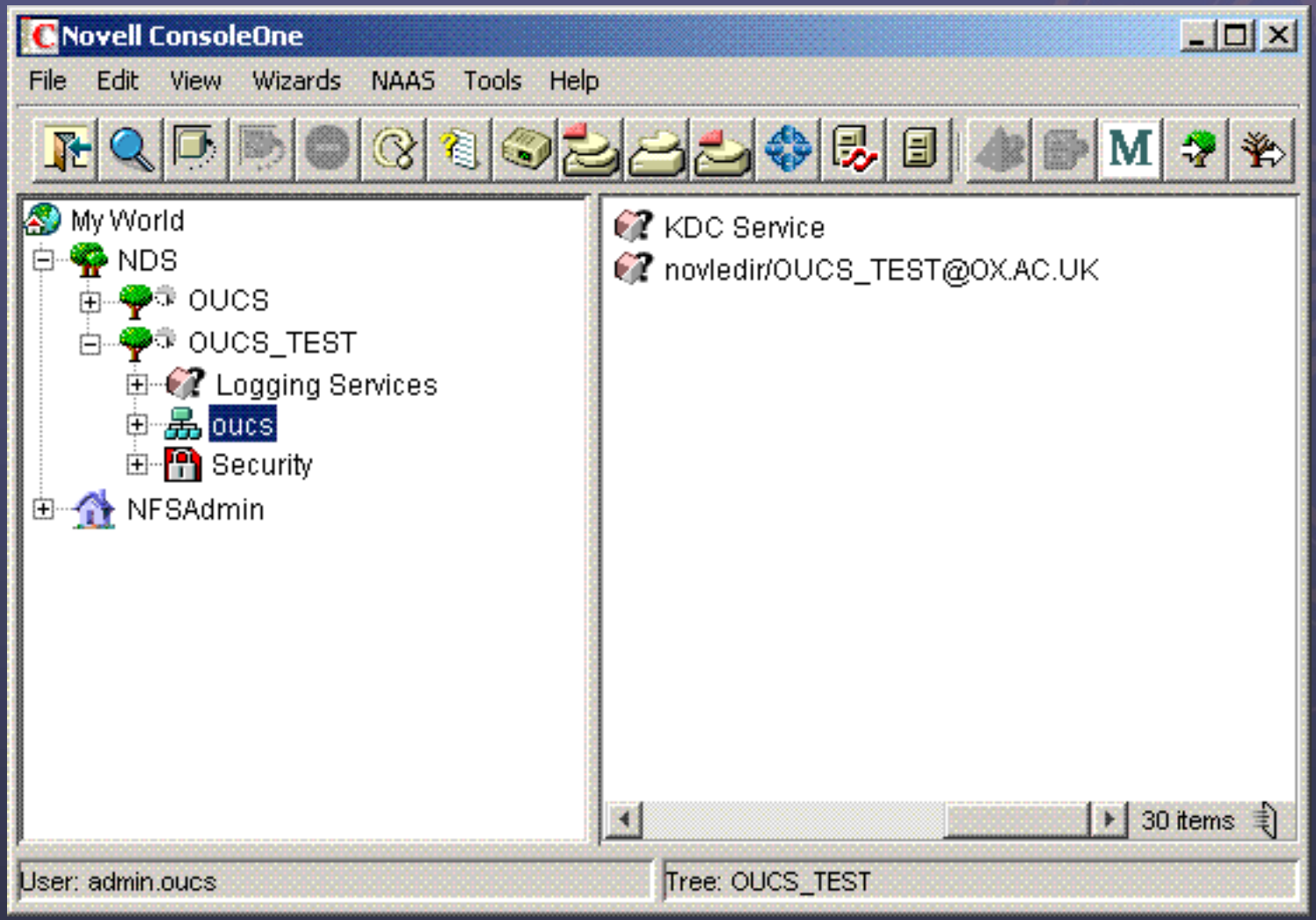
# Agenda

- Background
- Aims
- Technical Details
  - NMAS Kerberos Login Method
  - Installation and Configuration
  - How it works
- Demo
- Caveats
- Futures

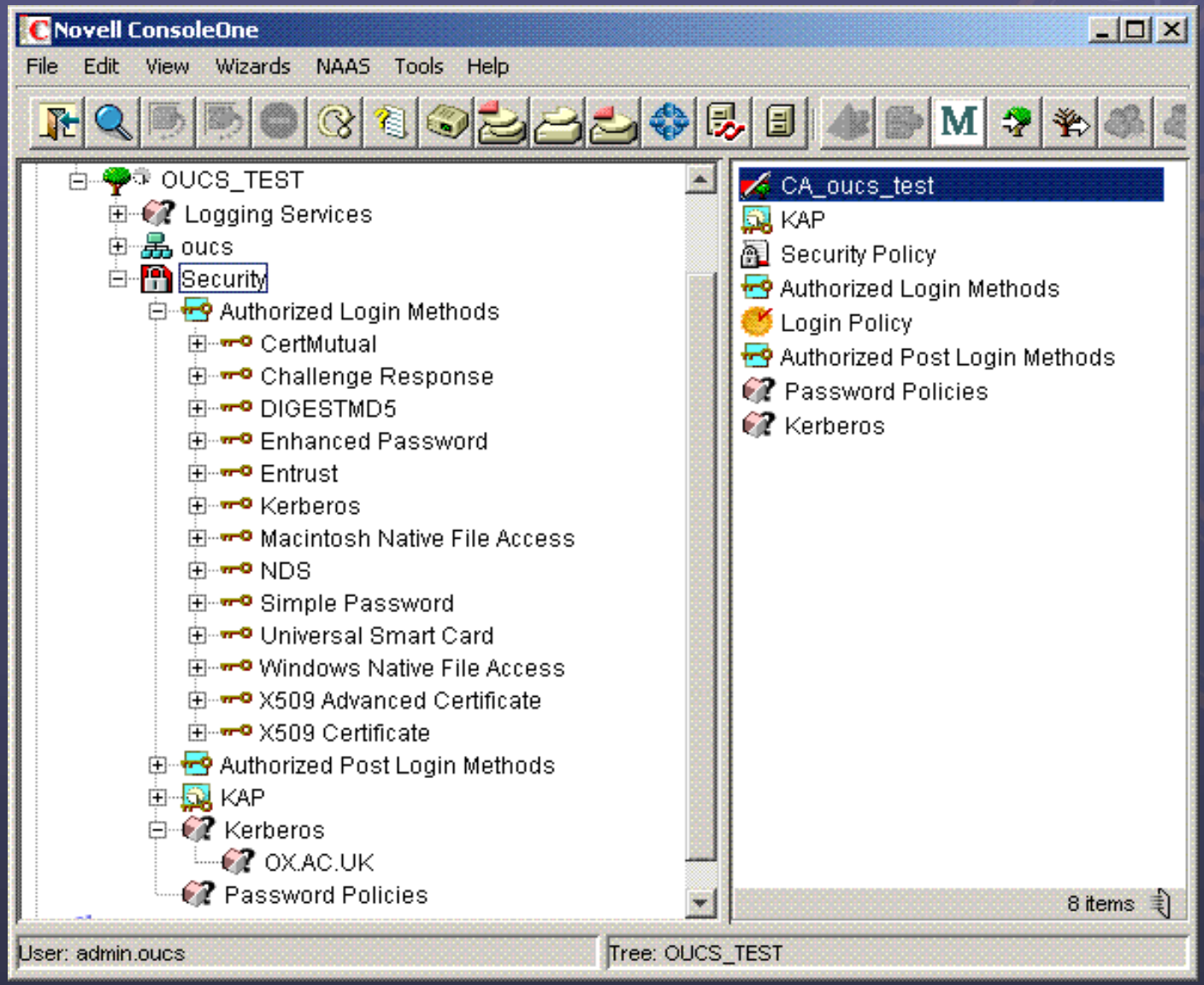
# NMAS Kerberos Method?

- Novell Modular Authentication Service
  - Methods for authenticating to eDir, e.g. Smartcards, certificates
- Additional method from Novell, allowing authentication to eDir using Kerberos tickets
- Works with various Kerberos v5 KDCs
- Requires NMAS Server v2.2.0 or above
- Requires Windows 98SE, NT4, 2000 or XP
- Requires Client 4.83 or above with NMAS

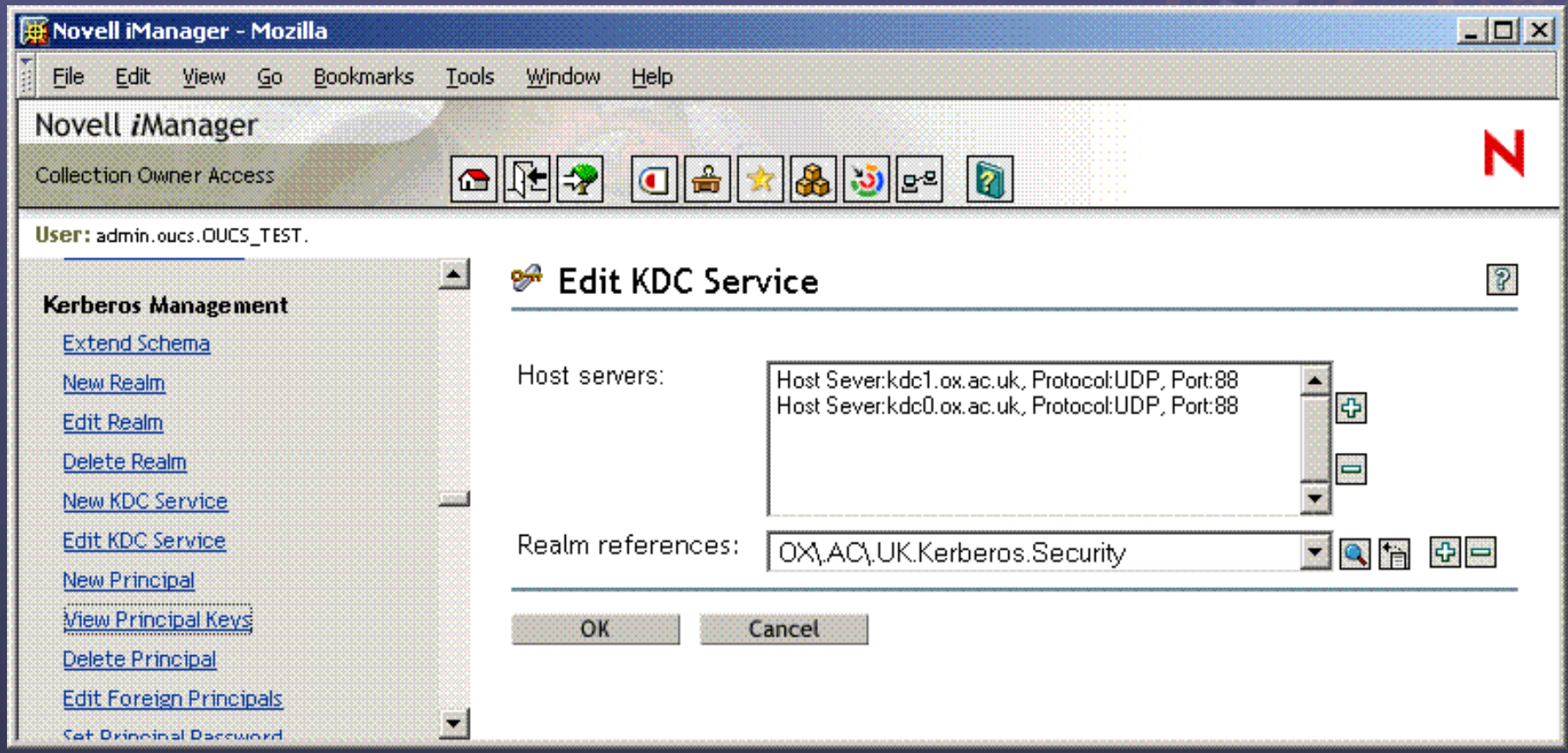
# Installation and Configuration



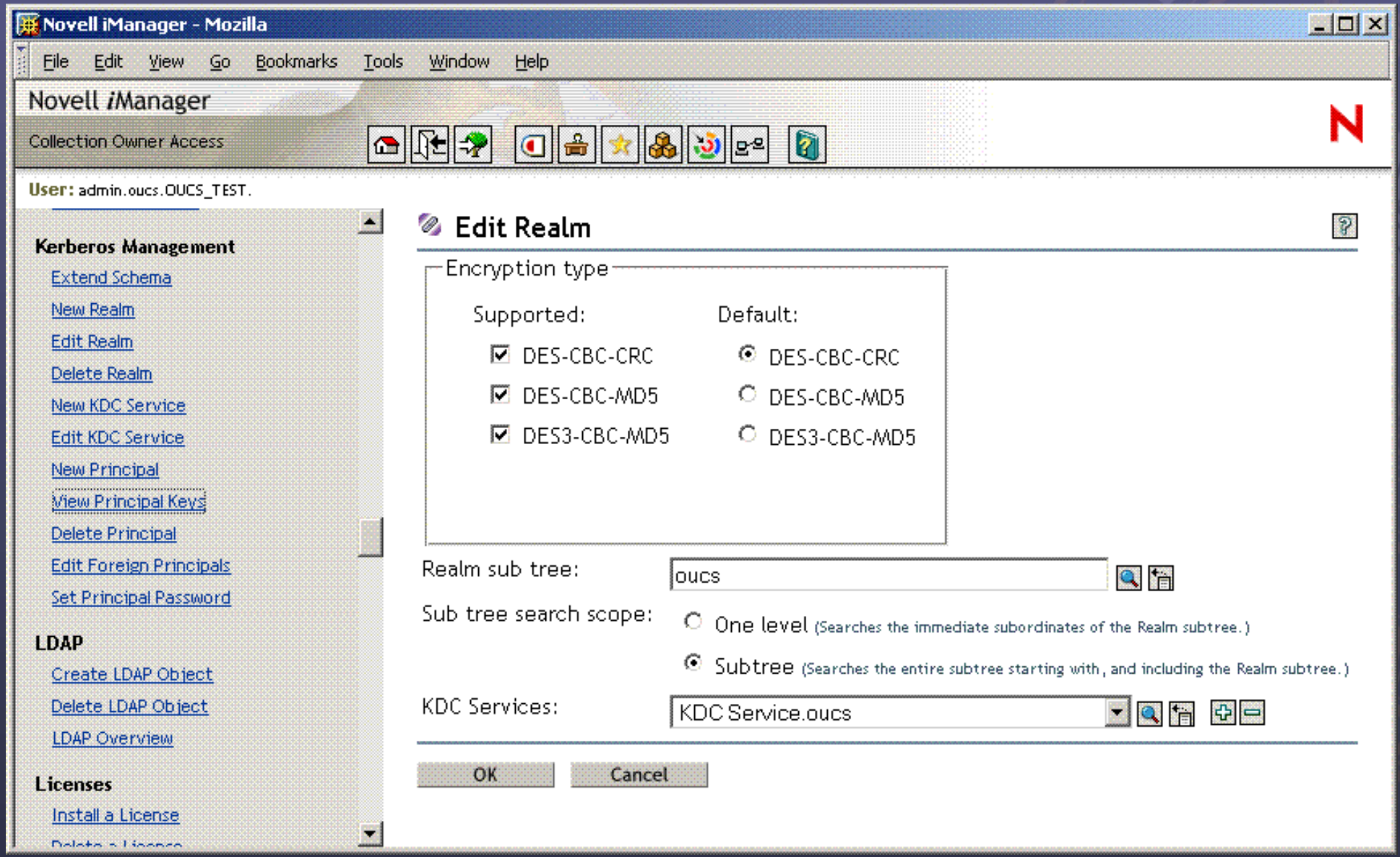
# Installation and Configuration



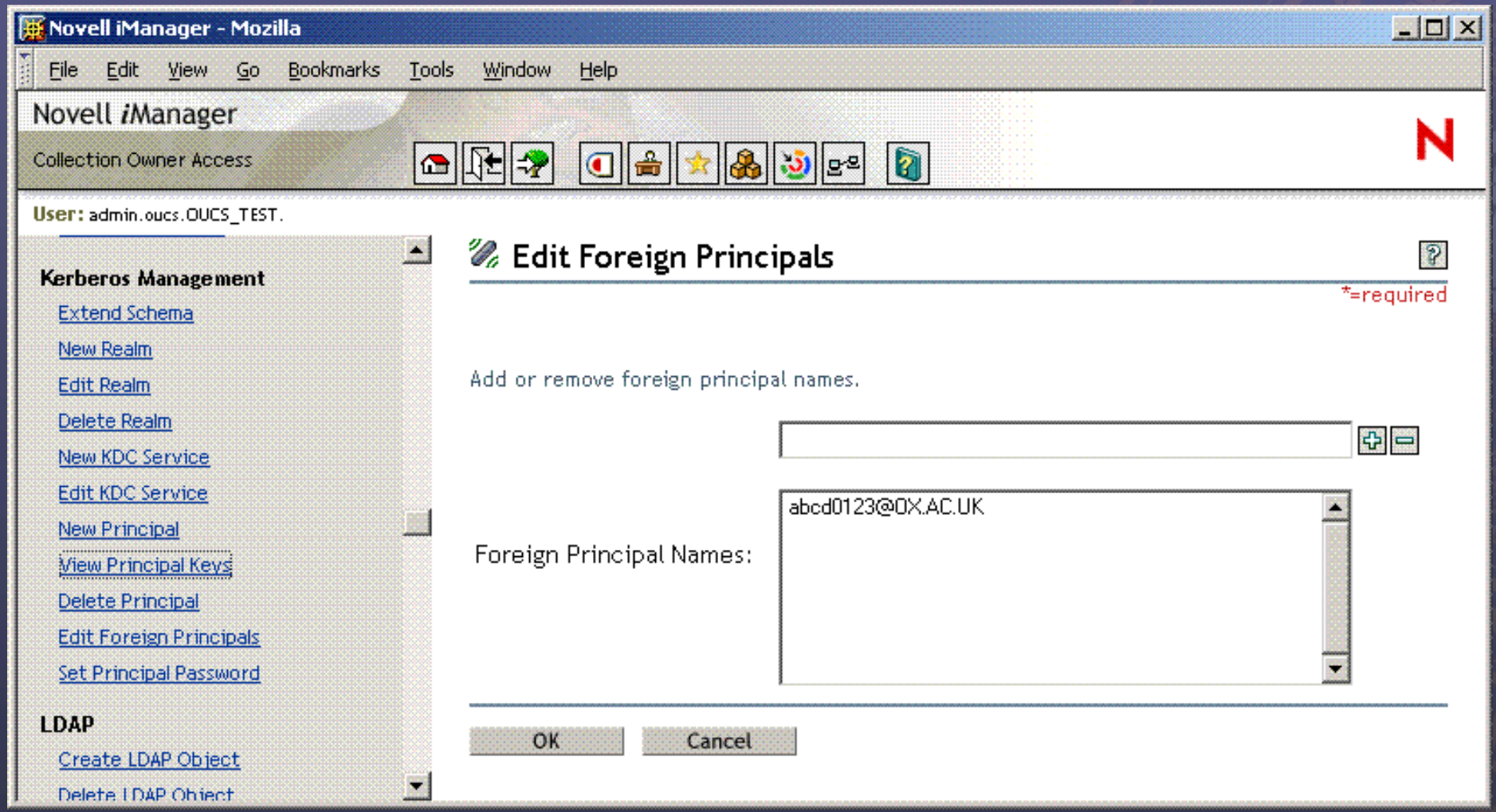
# Installation and Configuration



# Installation and Configuration



# Installation and Configuration



# How it Works

- User provides username and context information
- NMAS client queries eDirectory for Kerberos principal name and realm
- NMAS client authenticates using KDC acquiring TGT and eDir service ticket
- NMAS client presents service ticket to eDir
- NMAS server grants access to eDir services

# Extras

- Novl2mit utility will populate MIT Kerberos client credential cache
- Unlocking a locked workstation obtains new a TGT and service ticket from the KDC

# Agenda

- Background
- Aims
- Technical Details
- Demo
- Caveats
- Futures

# Demo

# Agenda

- Background
- Aims
- Technical Details
- Demo
- Caveats
- Futures

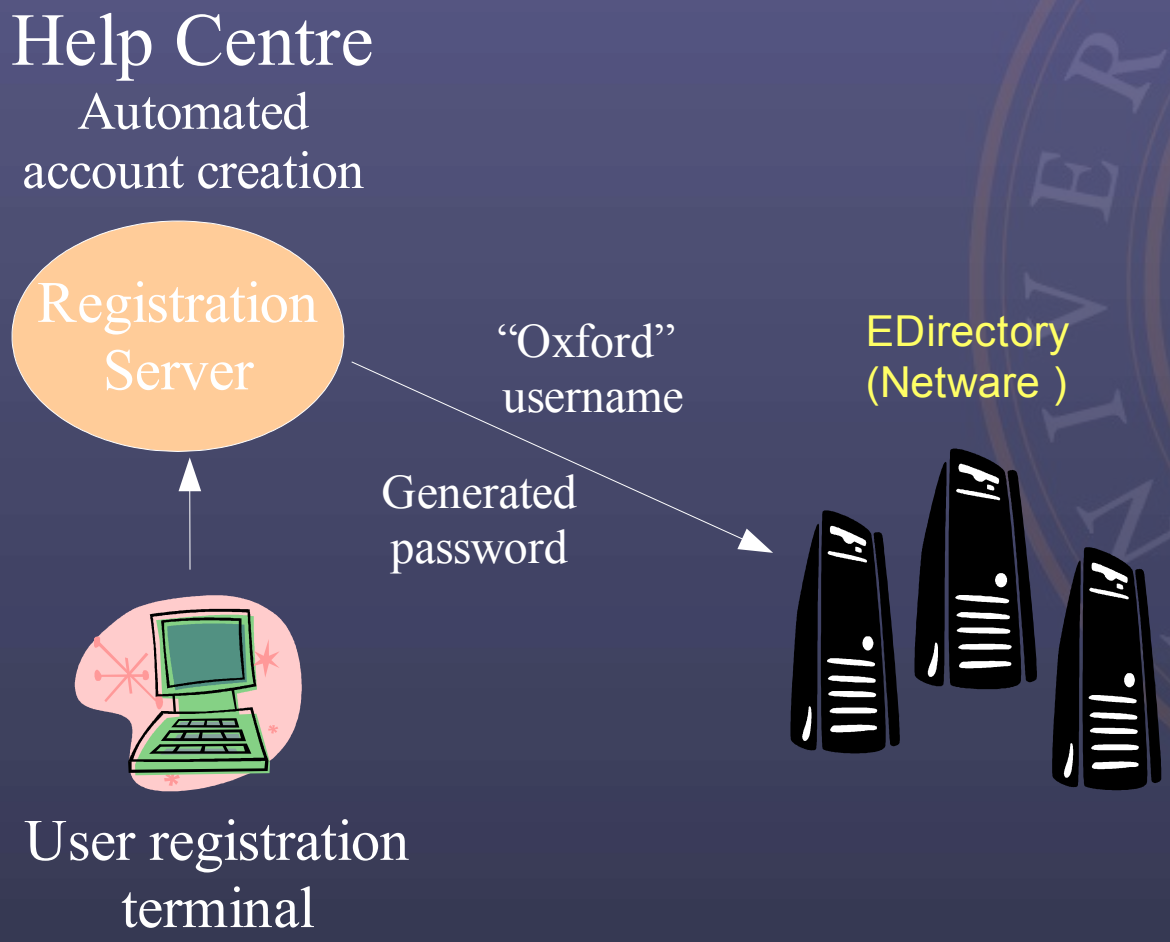
# Caveats

- Only possible for services that use Client 32
- Have not investigated authenticating to eDir and AD on the same workstation
- Tickets obtained are not renewable by default

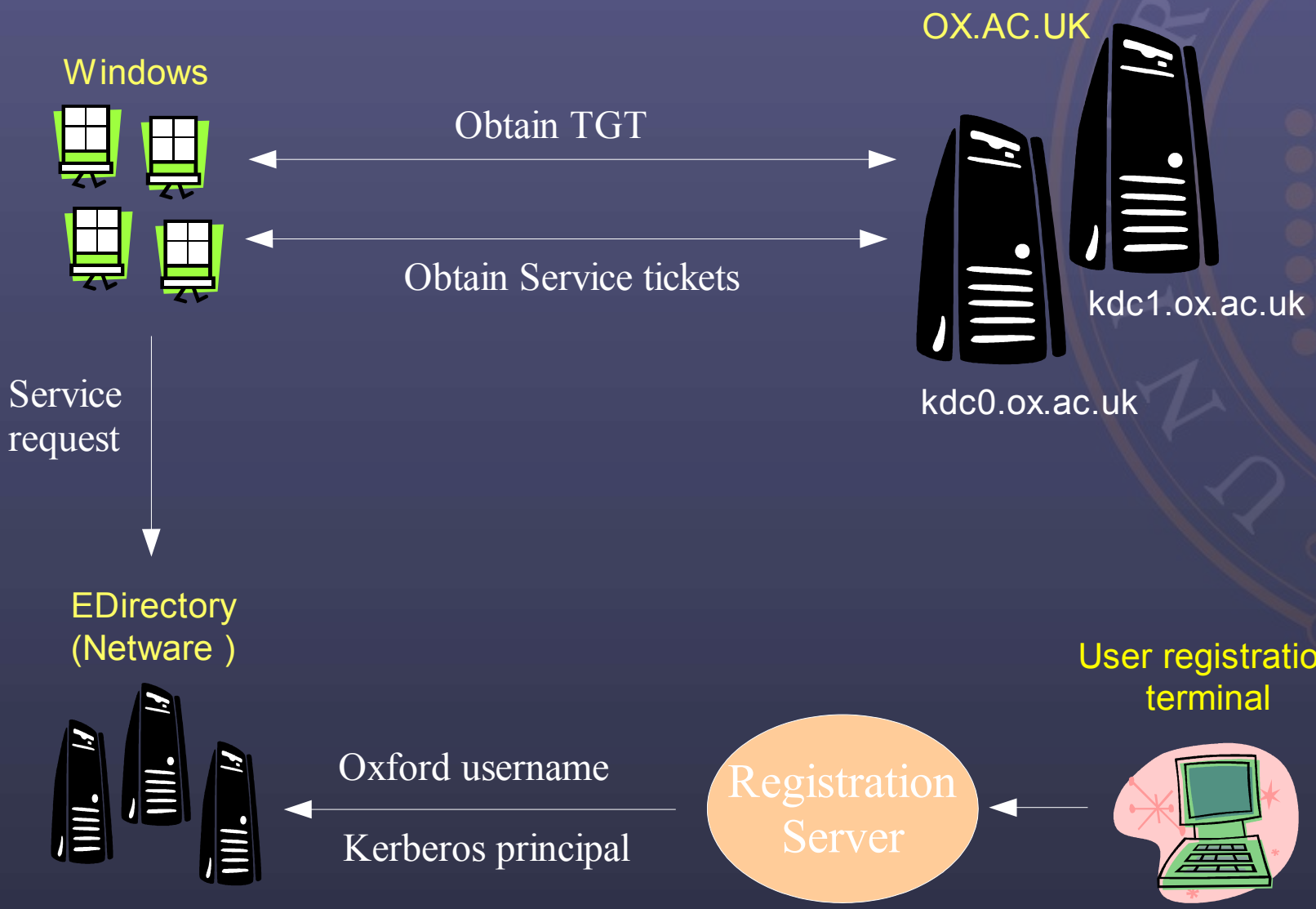
# Agenda

- Background
- Aims
- Technical Details
- Demo
- Caveats
- Futures
  - OUCS
  - Elsewhere

# Kerberos in the Help Centre



# Kerberos in the Help Centre



# Kerberos in Departments and Colleges

- Depends on individual circumstances
- Compromises may be required (Client32 limitation)
  - Either by providing more limited services,
  - Or by users maintaining two or more username/password combinations

# Questions?

# References

- Download from Novell (search for Kerberos)
  - http://download.novell.com/
- Novell Documentation
  - http://www.novell.com/documentation/nmaslm/treetitl.html
- OUCS Resources
  - http://www.oucs.ox.ac.uk/webauth/
  - http://users.ox.ac.uk/~pod/talks/itssc-webauth-krb5-2004-06-24/
  - http://users.ox.ac.uk/~raym/talks/tssso.2004-01-26/
- General Kerberos Guides
  - http://www.isi.edu/~brian/security/kerberos.html
  - http://web.mit.edu/kerberos/www/
- University of Michigan
  - http://www.umich.edu/~lannos/novell/kerberos.html