Got A Dance?
Emulating Windows from two sides using Wine and Samba

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Outline

Introduction

About myself
About Wine
About Crossover

Case study

Running Outlook

Background

The Secure Service Provider Interface
Wrapping ntlm_auth

Future plans
About myself

- Wine developer since 2005
- Samba team member since 2007
Some Wine facts

- Implementation of the Win32 API on Unix
- Created in 1993
- 1.8 million lines of code (1,811,626)
- About to reach the 1.0 milestone in 6-18 months
Crossover is...

- Wine with ease of installation and use
  - Integration with the desktop
  - Robust tools for deploying to many desktops
- Polished and stable build of Wine
  - More predictable and reliable behavior
- Support if something goes wrong
  - Responsive, knowledgeable staff
  - Nice to have Alexandre available to fix your problems
- A great way to support the Wine Project
  - CodeWeavers returns all Wine work to winehq.org
  - They do much of the ”heavy lifting” on Wine
Requirements

- Crossover Linux 6.1
  - Uses `ntlm_auth` from Samba 3.0.25
  - No Samba install needed
  - Can use existing Samba configuration
Settings
Yes, this is Linux
SSPI Overview

- Plug-in architecture
- GSSAPI, embraced & extended
SSPI Overview

Applications

Security Support Provider Interface

- Negotiate Provider
- NTLM Provider
- SSL Provider
Introducing ntlm_auth

- Squid plugin
- Standalone client mode
SSPI and ntlm_auth

AcquireCredentialsHandle → external credentials

InitializeSecurityContext

ntlm_auth

auth request → ntlm_auth

auth challenge → ntlm_auth

auth reply → ntlm_auth

AcquireCredentialsHandle

InitializeSecurityContext

InitializeSecurityContext
Possible future cooperation

- Directly talking to winbind about users
- Remote named pipes
- Talking to nmbd
Thank you

- Questions?