



LIKEWISE OPEN STATUS UPDATE | 11-AUG-2009



WHAT IS THE SCOPE OF INTEROPERABILITY?

Directory Services

Authentication, user management, access policy enforcement, network file services, network printing

Documents

Format, distribution, publishing, printing, collaborative editing

Messaging

Instant messaging, e-mail, video conferencing

Mobile Devices & Remote Access

Android, iPhone, Blackberry, Netbooks

LIKEWISE OPEN - PROJECT INFORMATION

<http://www.likewiseopen.org/>

Goal – Build an interoperability platform for non-Microsoft clients to operate as first class citizens in Microsoft OS dominated networks

Major Components (in the current 5.2 release)

Lsass – Authentication engine

Lwio – User-space I/O Manager including a SMB client file system driver

Netlogon – Domain controller locator service

DCE/RPC runtime environment (based on the Novell/XAD runtime)

Event Auditing – Event logging service

License – Mainly a combination of the GPLv2+ and LGPLv2.1+. External components remain under their original license (OpenLDAP, MIT Kerberos, DCE/RPC, etc.)
The code base can also be licensed under commercial terms for those that prefer.

```
$> git clone git://git.likewiseopen.org/likewise-open.git
```

LIKEWISE OPEN PROJECT HISTORY

2004 - current

Sometime in 2004 – Likewise Software (formally Centeris) was launched

Development efforts first focused on building upon existing open source technologies (e.g. Samba, Apache, OpenLDAP, and MIT Kerberos).

“Likewise Administrator” provided remote management of Linux hosts.

Oct 2006 – “Likewise Identity” v3.x - v4.x made use of the domain join capabilities in “Administrator” and extended platform support to HP-UX, Solaris, AIX, and OS X.

Nov 2007 – Likewise released, under the GPL, the system management utilities used to join hosts to Active Directory domain. This was the beginning of the official Likewise Open project. First included in Ubuntu Hardy (8.04).

Aug 2008 – Likewise Open 5.0 included a new authentication service (lsassd).

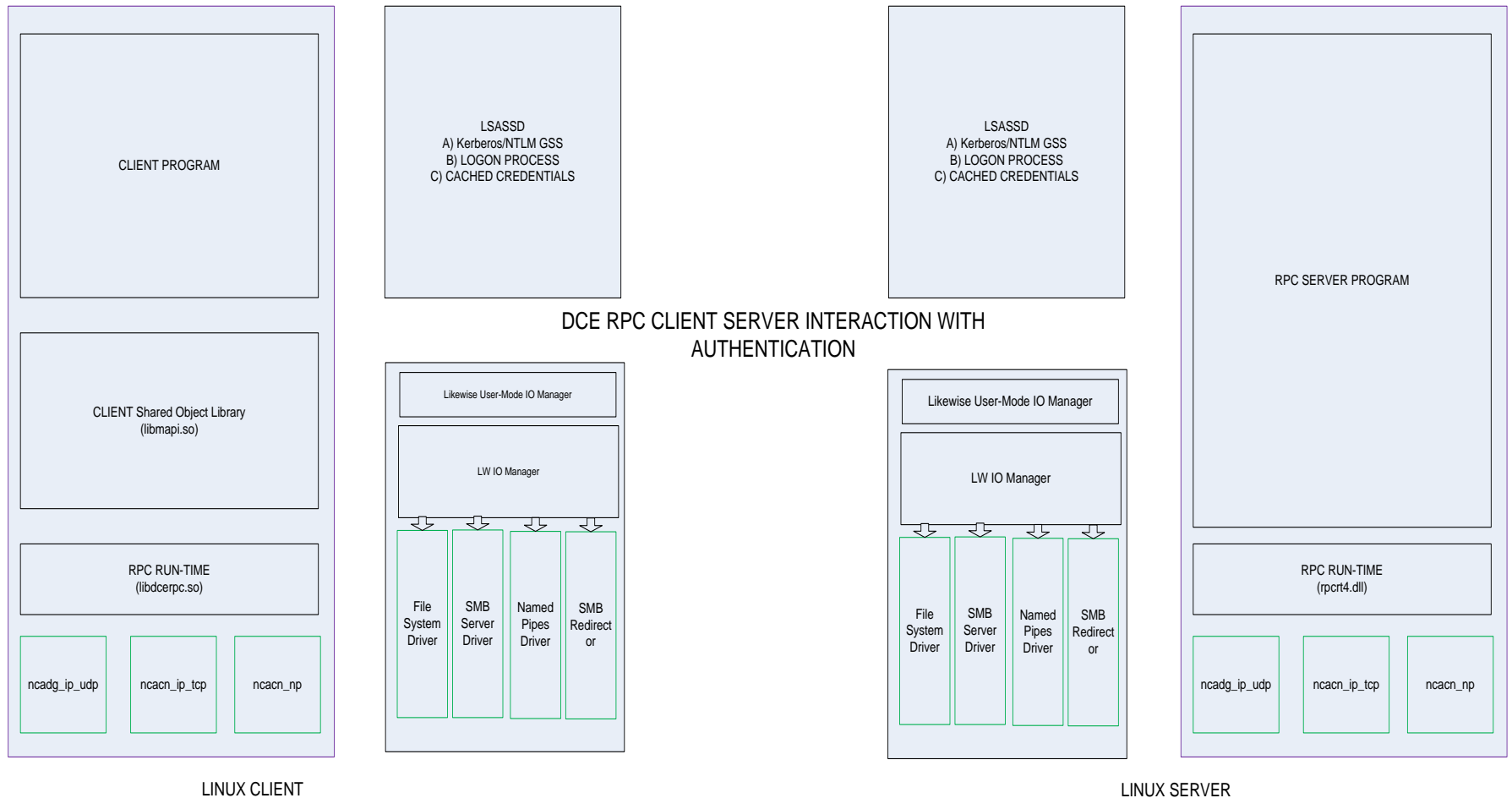
Jan 2009 – Likewise Open 5.1 contained a new SMB client redirector (lwrdr); The L-CIFS file server project was begun.

Apr 2009 – L-CIFS development work unveiled at SambaXP.

Jul 2009 – Likewise Open 5.2 presented the new I/O Manager architecture for the SMB client redirector driver.

LIKEWISE PLATFORM ARCHITECTURE

Interaction between DCE/RPC clients and servers



INSERT COOL DEMO → HERE ←

Joining Ubuntu Jaunty (9.04) to Win2008 AD Domain

MOVING FORWARD - PROJECT ROADMAP

Likewise Open 5.3 and beyond

Lsass New Features

- Local Account Manager

- RPC server support for the “Local Users and Groups” MMC plugin

NTLM provider for GSS-API and SPNEGO implementations

L-CIFS - The Likewise SMB/CIFS file server

- Technical previews currently available in the “master” git branch

- Drivers - SMB protocol, named pipe fs, POSIX fs, SMB client fs

- SMBv1 and v2 support (tcp/445 only)

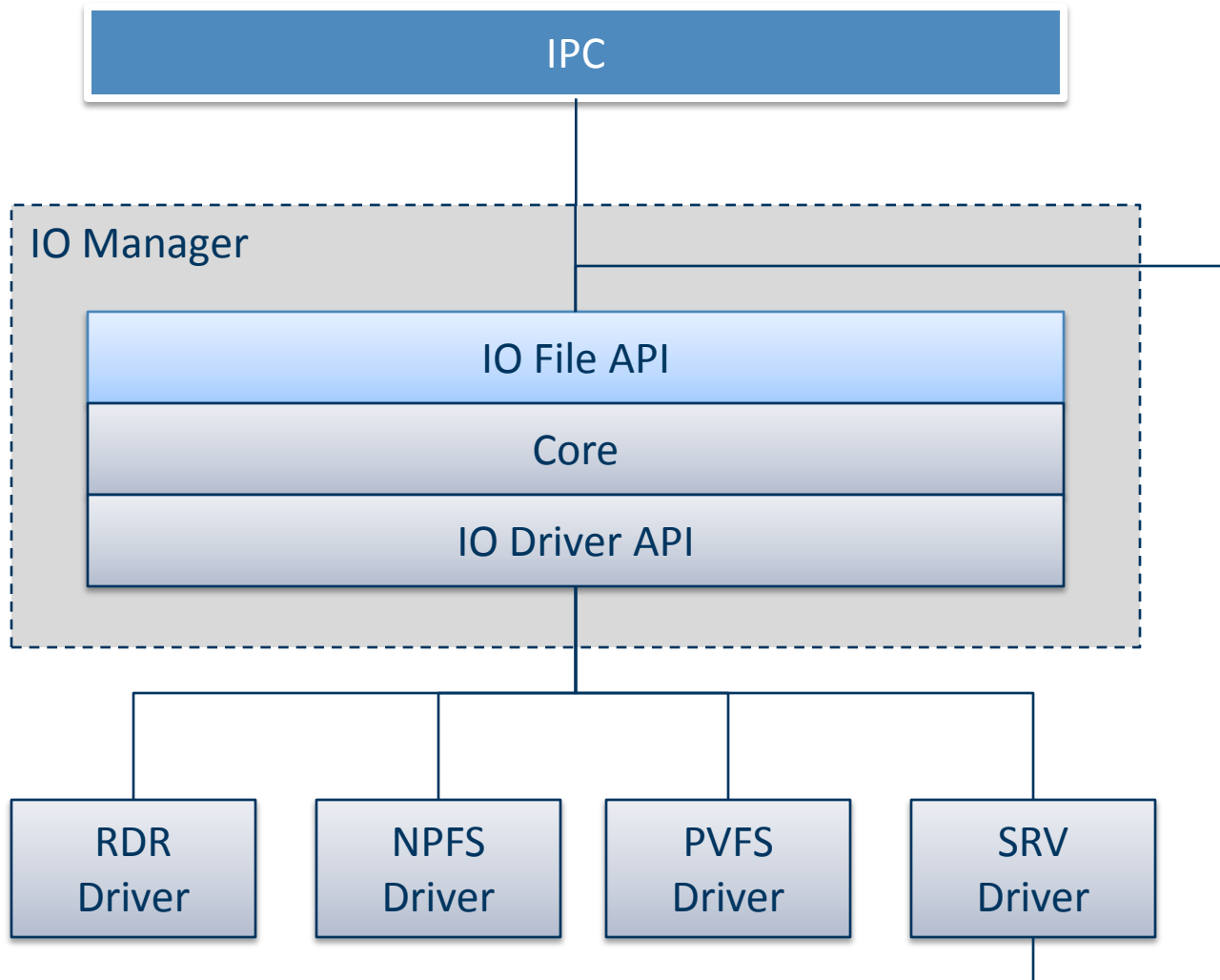
- Standalone and AD domain member server support

Potential DCE/RPC rewrite?

Discussion of other iomgr drivers (e.g. NFSv4)?

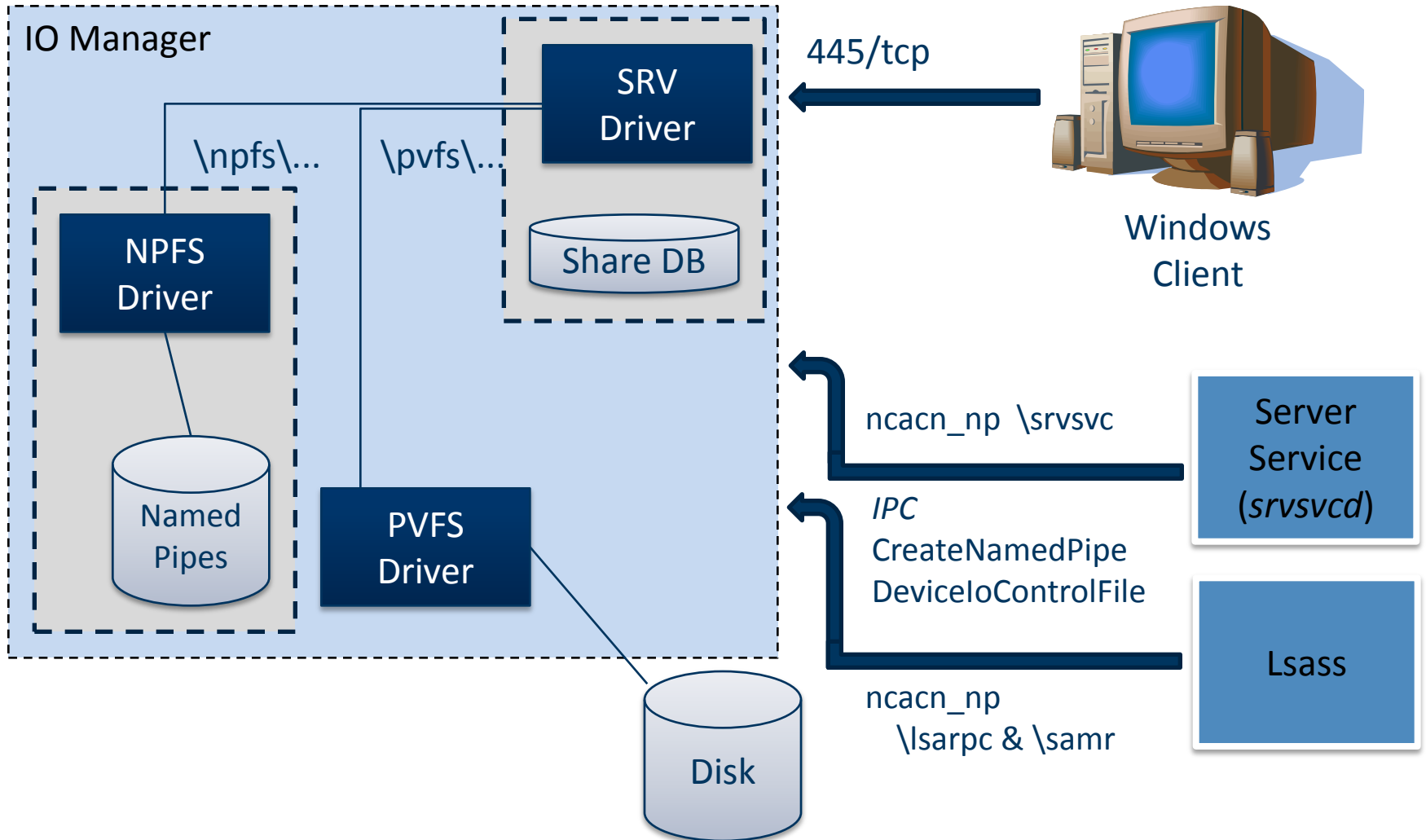
I/O MANAGER

High Level Architecture



L-CIFS

SMB/CIFS File Server Architecture



QUESTIONS?

[HTTP://WWW.LIKEWISEOPEN.ORG/](http://www.likewiseopen.org/)

[HTTP://ARCHIVES.LIKEWISEOPEN.ORG/~GCARTER/PRESENTATIONS/
GCARTER@LIKEWISE.COM](http://archives.likewiseopen.org/~gcarter/presentations/gcarter@likewise.com)