

# NFS Security

*Connectathon '98*

*SunSoft NFS/RPC Group*

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**RPCSEC\_GSS** - Lin Ling

**GSS-API** - Jack Kabat

**Kerberos V5** - Ram Marti

**PAM** - Mike Saltz

# NFS Security

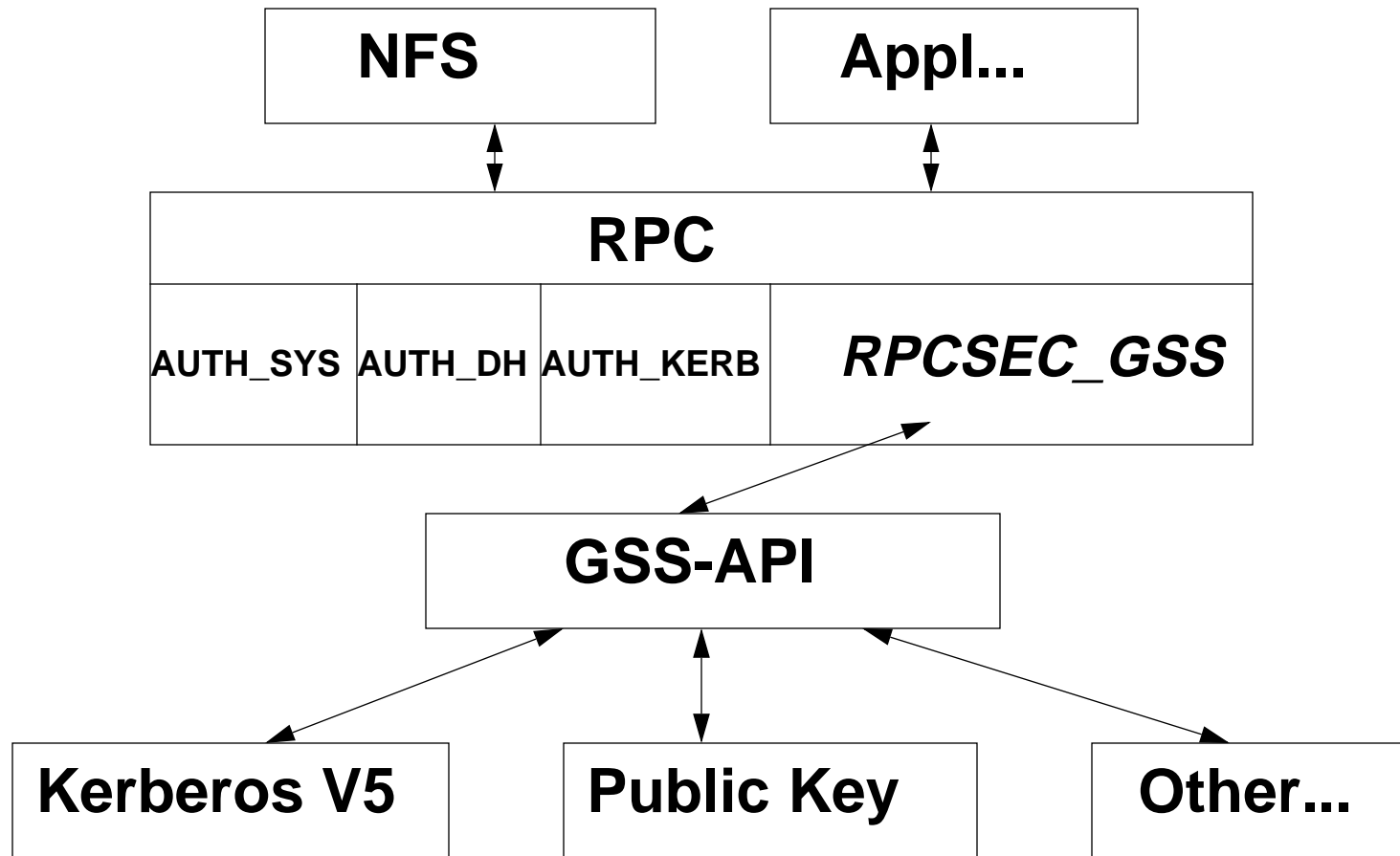
- **Goal**

- Strong security services including authentication, integrity and privacy
- Security Mechanism Independence
- Standards-based

- **Solution**

- A new RPC security flavor `RPCSEC_GSS`
- Use GSS-API
- Kerberos V5 and PAM
- Other security mechanisms

# RPCSEC\_GSS Framework



# RPCSEC\_GSS Components

- **API**

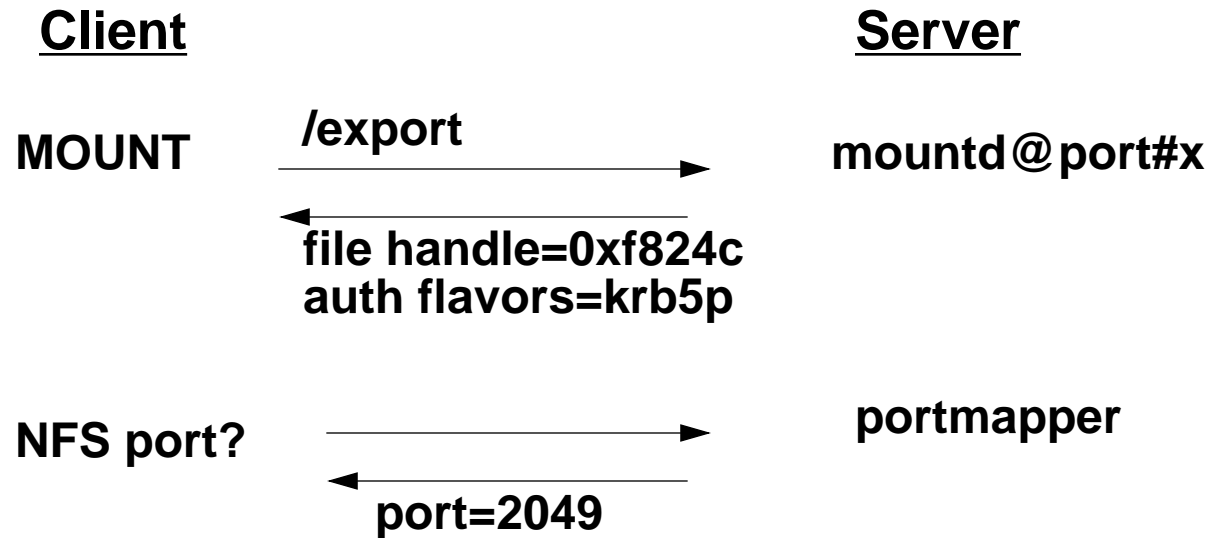
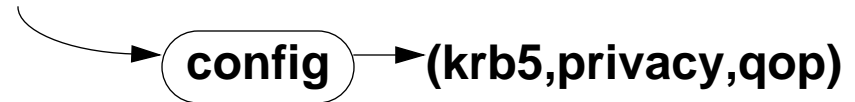
- `rpc_gss_seccreate(..., mechanism, service, qop,...)`
- `rpc_gss_set_svc_name(server-svc-name, mech,...)`
- etc...

- **Protocol**

- Security Context Creation
- RPC Data Exchange
- Security Context Destruction

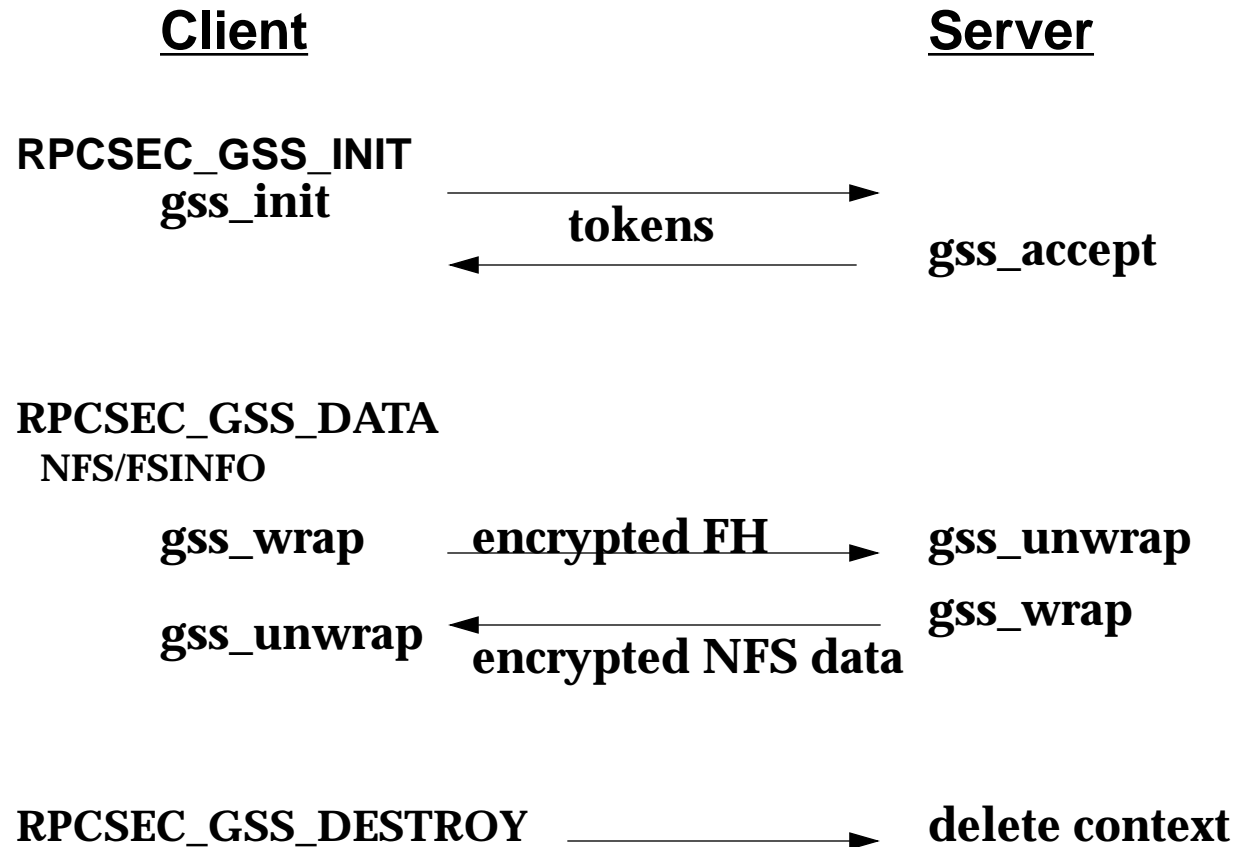
## When NFS uses RPCSEC\_GSS

Example: # share -o sec=krb5p /export



Start NFS operations using RPCSEC\_GSS ...

## Example: # share -o sec=krb5p /export (Continue)



## **STATUS of RPCSEC\_GSS**

- **(9/97) RFC 2203 - RPCSEC\_GSS Protocol Spec.**
- **Framework will be in the future Solaris release.**