

UA generic authentication methods¹ using central password store on existing UA infrastructure

	Passwords Provided to Service		Trusted Third Party Authentication			
	Synchronize (replicate passwords)	Replay users' Credentials	"Proprietary" authN protocols	Robust protocols; can provide SSO	Extensible, privacy-preserving	Federated Trust Fabric (outside UA)
Protocols / Standards	Replicate/sync passwords	"LDAP authN" "AD authN"	Proprietary	Kerberos, CAS	SAML	PKI & SAML
Implementations	Sun ISW & others; portals	MS AD Oracle DSEE Open Directory...	NTLM, IWA ² , AuthServ I & II ³	MIT & vended Kerberos, MS-KILE, JASIG CAS, CASSHIB	Shibboleth SimpleSAML PHP ADFS (?)	InCommon
Supported Credential Stores	ANY (Domain, KDC, Oracle, LDAP,...)	Domain or LDAP	Domain or LDAP	KDC Domain or LDAP	ANY, including 2-factor (Domain & LDAP jointly in production @ UA)	

Color key (*diagonal striping indicates not currently deployed at UA*):

- Requires repository of all users' passwords at service; strongly deprecated as difficult to maintain synchronization and replication risks exposure of users' credentials
- Requires sending users' clear-text passwords to service [even if encrypted in transit]; strongly deprecated outside trusted security domain as relayed credentials subject to unintentional exposure
- Secure 3rd party authN protocol using proprietary or in-house protocols or superseded interfaces; deprecated in favor of vended or supported open source solutions; does not provide Single Sign-On (SSO)
- Secure & robust 3rd party authN suitable for services and clients that support protocol; native support for each method available only for particular services and clients; can provide SSO
- Secure assertion-based authN & attribute release applicable to many web-based services; adds support for federated trust fabric ("authenticate local, access global"); designed to provide SSO

¹ "Methods" used here in the ordinary sense that encompasses protocols, techniques and practices

² Integrated Windows Authentication in the specific sense providing Kerberos-based authN to IIS servers in IE8

³ in-house developed partial implementation of SAML for Google @ UA