



# APPENDIX C

## Feature Comparison of ACS 3.x and 4.x with ACS 5.3

**Table C-1** Feature Comparison List—ACS 3.x/4.x and ACS 5.3

Feature	ACS 3.x and 4.x	ACS 5.3	Notes
<b>Platform Support</b>			
1111	Yes	No	
1112	Yes	No	
1113	Yes	No	
1120	Yes (4.2)	Yes	ACS 5.0 shipping appliance
1121	No	Yes	ACS 5.3 shipping appliance
Windows Server	Yes	No	
Virtual machine	ESX 3.x	ESX 3.x/4.0/i4.1/5.0	
<b>Components</b>			
ACS for Windows	Yes	No	No Windows Server support in ACS 5.3
ACS Solution Engine	Yes	No	ACS 5.3 provides its own appliance option
ACS View 4.0	Yes	No	ACS 5.3 has integrated View functionality
ACS Remote Agent	Yes	No	Remote Agent not required in 5.3
ACS Express 5.0	No	No	
<b>Application Integration</b>			
CiscoWorks Common Services (for CSM/LMS)	Yes	No	
Cisco Wireless Control System (WCS)	Yes	Yes	
<b>Distributed Model</b>			
Single primary/Multiple Secondary	Yes	Yes	

**Table C-1 Feature Comparison List—ACS 3.x/4.x and ACS 5.3 (continued)**

<b>Feature</b>	<b>ACS 3.x and 4.x</b>	<b>ACS 5.3</b>	<b>Notes</b>
Cascading replication	Yes	No	
Replication trigger	Manual or per schedule	On configuration change	
Replication unit	Whole replication component	Configuration delta only	
Synchronization	Loose	Tight	
Automatic outage resynchronization	No	Yes	
Internal user password updates	On primary only	Any server	
Role-based secondary to primary promotion	No	Yes	
<b>Identity Store Support</b>			
Internal	Yes	Yes	
Active Directory	Yes	Yes	
LDAP	Yes	Yes	
RDBMS	Yes	No	
RSA SecurID	Yes	Yes	
Other One-time Password Servers	Yes	Yes	Uses RADIUS interface to OTP server
<b>AAA Proxy Support</b>			
RADIUS proxy	Yes	Yes	Includes EAP Proxy
TACACS+ proxy	Yes	Yes	
<b>Logging Destinations</b>			
ACS View	Yes	Yes	
Syslog	Yes	Yes	
ODBC	Yes	No	ACS 5.3 provides View log data synchronization with an external database for archival purposes
<b>Configuration Query/Provisioning</b>			
Web-based GUI	Yes	Yes	
CSV-based updates	Yes	Yes	
CSUtil	Yes	No	
RDBMS Synchronization	Yes	No	
<b>Management</b>			
SNMP query	Yes (appliance only)	Yes	

**Table C-1 Feature Comparison List—ACS 3.x/4.x and ACS 5.3 (continued)**

<b>Feature</b>	<b>ACS 3.x and 4.x</b>	<b>ACS 5.3</b>	<b>Notes</b>
SNMP traps	No	No	
View alarms	Yes	Yes	
GUI	Yes	Yes	
Cisco standard look and feel GUI	No	Yes	
CLI	Yes (limited, appliance only)	Yes (similar to IOS)	
System restart after some configuration changes	Yes	No	
KVM console access	No	Yes	
Choice of file transfer storage repositories	No	Yes	
In-place, cross-version upgrade procedure	No	Yes	
Remote upgrades/patching	Partial	Yes	
<b>Password Authentication</b>			
PAP	Yes	Yes	
CHAP	Yes	Yes	
MS-CHAPv1	Yes	Yes	
MS-CHAPv2	Yes	Yes	
EAP-MD5	Yes	Yes	
EAP-TLS	Yes	Yes	
PEAP-MSCHAPv2	Yes	Yes	
PEAP-GTC	Yes	Yes	
PEAP-TLS	Yes	Yes	
FAST-MSCHAPv2	Yes	Yes	
FAST-GTC	Yes	Yes	
FAST-TLS	Yes	No	
LEAP	Yes	Yes	
<b>TACACS+</b>			
Command authorization	Yes	Yes	
Accounting	Yes	Yes	
Single connect	Yes	Yes	
Change password	Yes	Yes	
Enable handling	Yes	Yes	
Custom services	Yes	Yes	
Optional attributes	Yes	Yes	

**Table C-1 Feature Comparison List—ACS 3.x/4.x and ACS 5.3 (continued)**

<b>Feature</b>	<b>ACS 3.x and 4.x</b>	<b>ACS 5.3</b>	<b>Notes</b>
CHAP/MSCHAP authentication	Yes	No	
Attribute substitution	Yes	No	
<b>ACS Password Policy</b>			
Complexity	Yes	Yes (stronger)	
History	Yes (last only)	Yes (multiple)	
Expiry	Yes (age by days, logins, first login)	Yes (age by days)	
Expiry warning	Yes	Yes	
Grace period	Yes	No	
<b>Account Disablement</b>			
By date	Yes	No	Can be implemented using authorization policy
By failed attempts	Yes	No	
By inactivity	No	No	
<b>Network Devices</b>			
Separate TACACS+/RADIUS entries	Yes	No	
Hierarchical, scalable device grouping	No	Yes	
Default network device	TACACS+ only	RADIUS and TACACS+	
Group-level shared secrets	Yes	No	
Wildcard for IP address	Yes	Yes (mask-based only)	
<b>Access Policy</b>			
Flexible, rules-based policy model	No	Yes	
Mandatory ACS group assignment	Yes	No	
Multiple group membership	No	Yes	
Static IP address assignment	Yes	Yes	Extend schema, policy
Maximum sessions	Yes	Yes	
Group disablement	Yes	Yes	Implement in ACS 5.3 policy
VOIP support	Yes	No	
ToD settings	Yes	Yes	

**Table C-1 Feature Comparison List—ACS 3.x/4.x and ACS 5.3 (continued)**

<b>Feature</b>	<b>ACS 3.x and 4.x</b>	<b>ACS 5.3</b>	<b>Notes</b>
Callback	Yes	Yes	Use of Windows Callback setting is not available in ACS 5.3
Network Access Restrictions	Yes	Yes	
Usage quotas	Yes	No	
Enable options	Yes	Yes	Implement in ACS 5 policy
Token caching	Yes	No	
IP address assignment	Yes	Yes (static and AAA client pool only)	For assigning static IP address, implement in authorization policy by adding IP address field to user schema.  AAA client pool refers to the ability to set the VSA attribute "ip-pool-definition" on ACS. The pool itself will be defined on the switch or router itself.
Downloadable ACLs	Yes	Yes	
Supplementary user information	Yes	Yes	
Extendable ACS user schema for use in policy conditions and for authorization values	No	Yes	
User attributes (internal, AD, LDAP), that can be leveraged in policy conditions and as authorization values	No	Yes	
External password authentication for ACS internal users	Yes	Yes	In ACS 5, the password store must be specified through Access Service Identity Policy, and cannot be specified in the user's record.
Time bound alternate group	Yes	Yes	In ACS 5, time-based conditions are used to specify different permissions based on time of the day.
Windows dial-in support	Yes	No	
<b>ACS Administrators</b>			
Network restrictions	Yes	Yes	
Entitlement reports	Yes	Yes	
Password complexity	Yes	Yes (stronger)	
Password aging	Yes	Yes	
Password history	Yes	Yes	

**Table C-1 Feature Comparison List—ACS 3.x/4.x and ACS 5.3 (continued)**

<b>Feature</b>	<b>ACS 3.x and 4.x</b>	<b>ACS 5.3</b>	<b>Notes</b>
password inactivity	Yes	Yes	
Account disablement because of failed attempts	Yes	Yes	
Account disablement because of account inactivity	Yes	Yes	
Permission control	Yes	Yes (role-based)	
<b>Certificate-based Authentication/Authorization</b>			
Mandatory AD authorization	Yes	No	
SAN/CN Comparison	Yes	No	Can be implemented indirectly in ACS 5.3 by checking for user attribute existence
Certificate binary comparison	Yes	Yes	