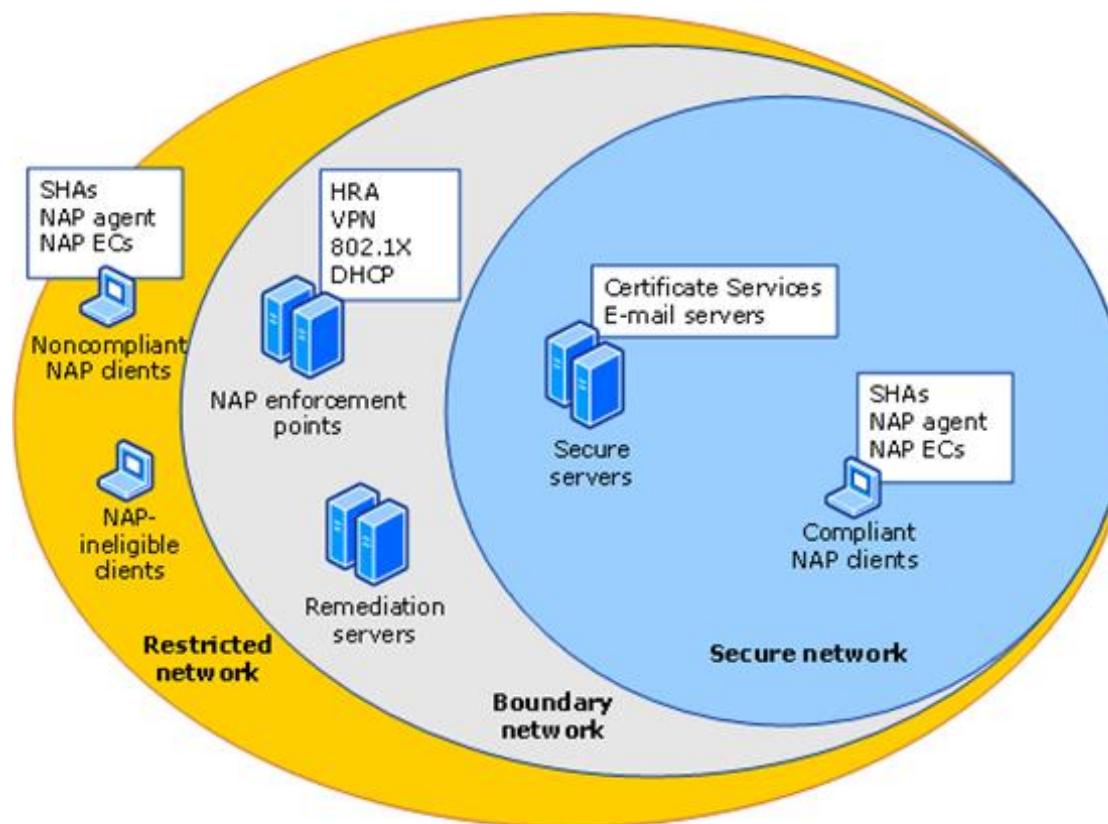


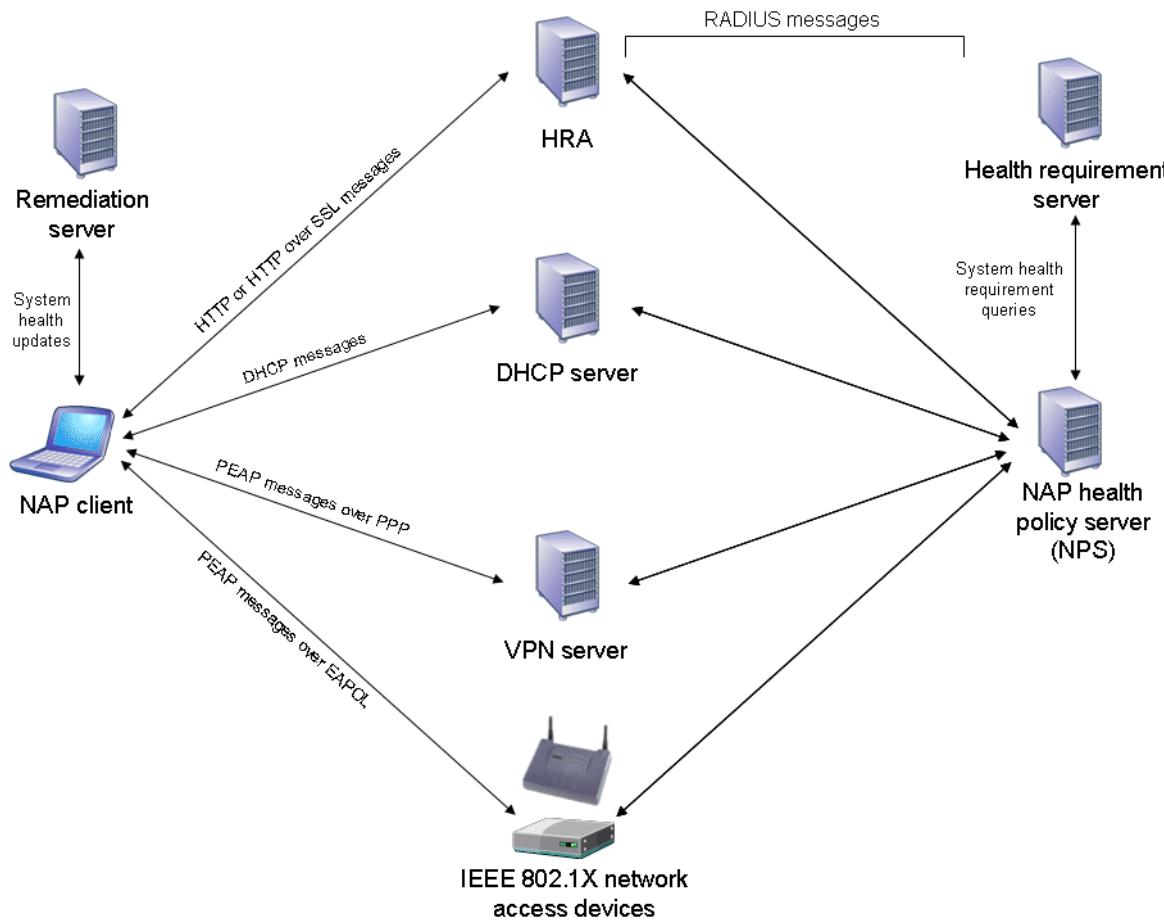
Microsoft NAP Protocols

- Promote Clients from Restricted to Secure Network
 - Based on current Security Policies and Statement of Health
 - NAP failure provides client with address of remediation servers
- Protocol Specifications
 - <http://msdn.microsoft.com/en-us/library/cc216517.aspx>
 - Windows Communication Protocols
 - Windows Server Protocols

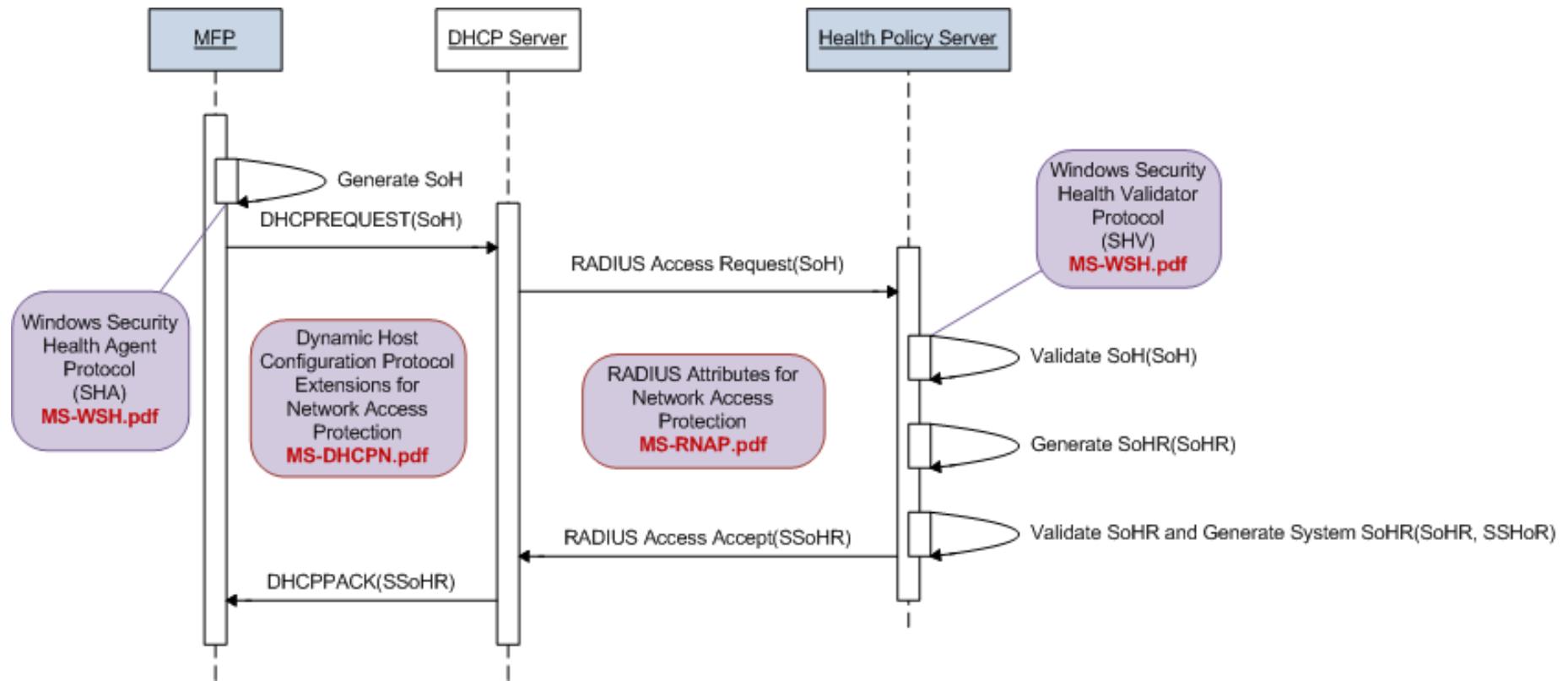


Microsoft NAP Protocols

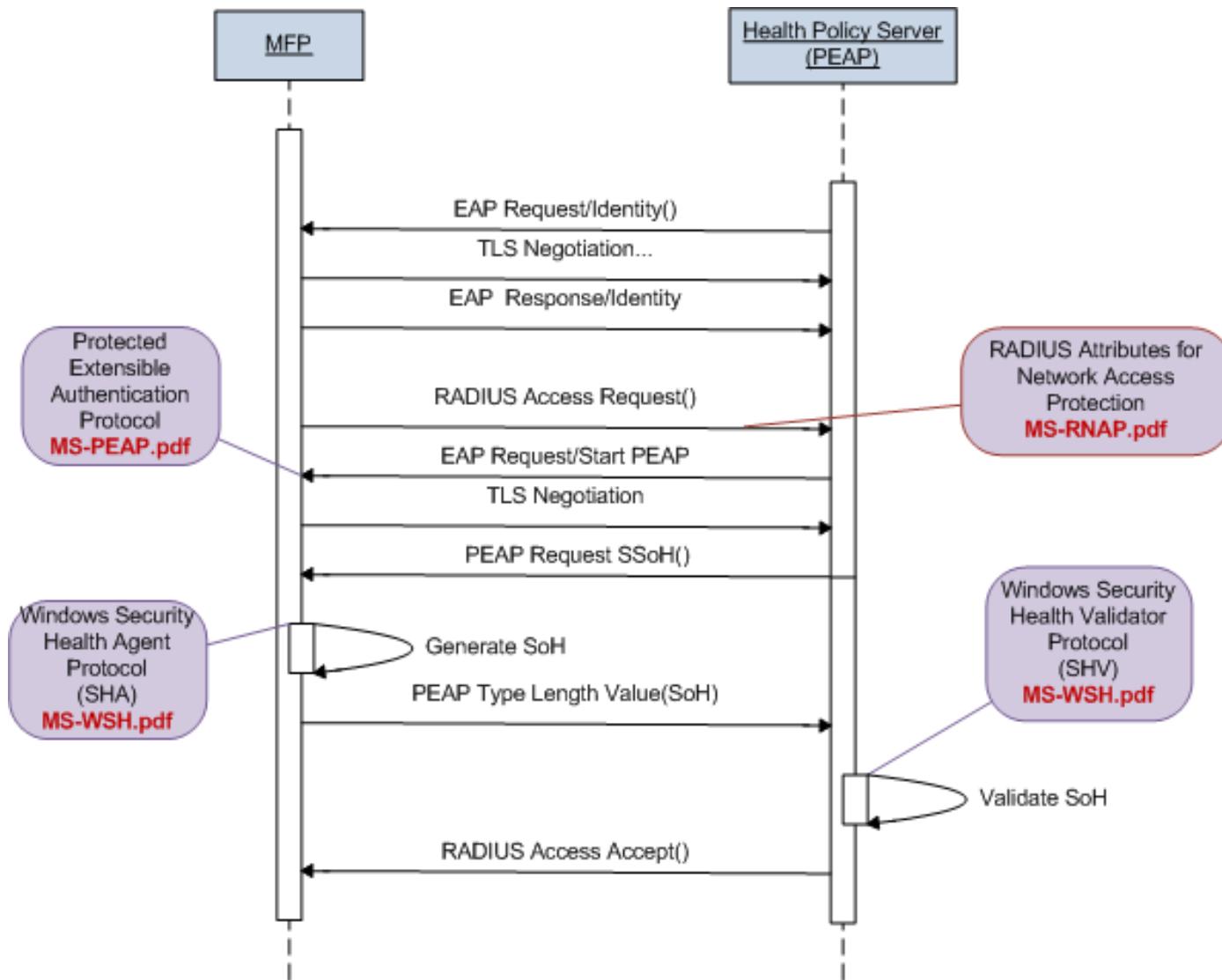
- Support Multiple Access Control Methods
 - DHCP (RADIUS)
 - 802.1x (PEAP - Protected Extensible Enrollment Protocol)
 - VPN (PEAP)
 - IPSec (HCEP – Health Certificate Enrollment Protocol)



NAP DHCP



NAP 802.1x (PEAP)



NAP IPSec (HCEP)

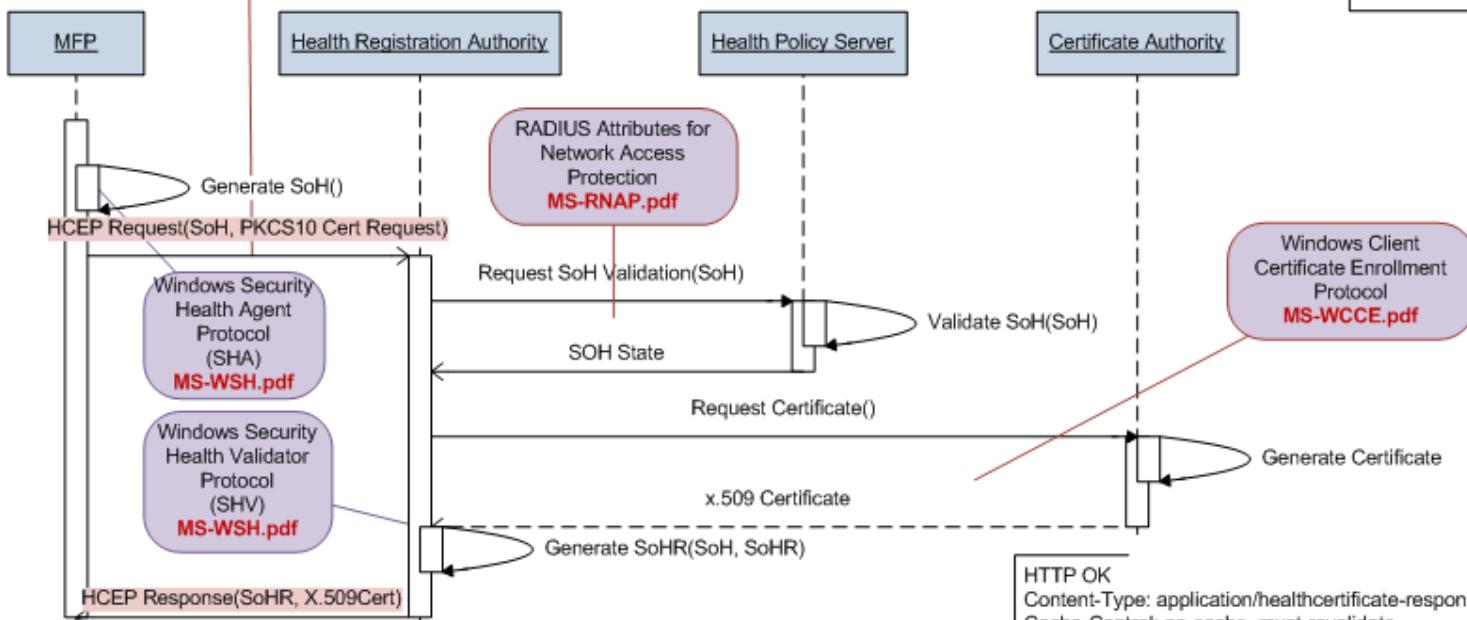
Health Certificate Enrollment Protocol over
HTTP/HTTPS transport
MS-HCEP.pdf

URL to HRA must be known:
 1) Part of Trusted Server Group in Group Policy settings:
 Computer Configuration\Windows Settings\Security Settings
 Network Access Protection\NAP Client Configuration
 2) DNS SRV record:
`_hra._tcp.site_name._sites.domain_name`

HTTP POST
Content-Type: application/healthcertificate-request
Pragma: no-cache
HCEP-Version: 1.0
HCEP-Correlation-Id: <Base64 encoded SOH MS-CorrelationId value>

HTTP Body
 ASN.1 encoded PKCS #10 request
PKCS Attributes:
 Extended Key Usage
 Health Certificate Request OID (1.3.6.1.4.1.311.47.1.1)
 id-kp-clientAuth OID (if HRA authentication to Windows Domain)
 Subject Alternative Name (FQDN of client)
 Statement of Health Certificate Extension
 ASN.1 encoded SoH
 Cryptographic Service Provider Certificate Extension:
 Crypto Service Provider used to generate key pair

Optional Boolean flag (internal) to
request client authentication



Health Certificate Enrollment Protocol
over
HTTP/HTTPS transport
MS-HCEP.pdf

HTTP OK
Content-Type: application/healthcertificate-response
Cache-Control: no-cache, must-revalidate
HCEP-Version: 1.0
HCEP-Correlation-Id: <HCEP-Correlation-Id from HCEP Request>
HCEP-SoHR: <Base64-encoded Statement of Health Response>
HCEP-AFW-Protection-Level: <1 = cert for signing data
 2 = cert for signing and encrypting data>
HCEP-AFW-Zone: </IPSec Policy source (Vista)>