Changes and new features in Apache 2.4

• Apache 2.4 introduces harmonization of authentication and authorization mechanisms.

• Require directives now allow to specify the order of authorization rules.
  – Multiple authorization methods are called in the same order in which the Require directives appear in the configuration.

• New authorization container directives:
  – <RequireAll>, <RequireAny>, <RequireNone>
    • This enables you to specify complex authorization rules, similar to the Shibboleth XML access rules.
  – Default for Require directives corresponds to <RequireAny>, if no container is explicitly used.
Changes and new features in Apache 2.4

• Host and IP based authorization is now handled by Require directives.
  – Order, Allow, Deny, Satisfy are deprecated, but still supported.
Changes in Shibboleth SP affecting Apache

• For Apache 2.4 and SP 2.5.2 or later, the syntax of the Apache configuration statements regarding access control and Shibboleth has slightly changed.

• The Shibboleth SP module introduces new and updated statements that reflect the changes in Apache 2.4.
Changes in Shibboleth SP affecting Apache

• Use new syntax of Shibboleth directives even in Apache 2.2:
  – Requires that directive `ShibCompatWith24 On` is used

  – Old syntax:
    ```
    Require homeOrganizationType university uas
    ```

  – New syntax:
    ```
    ShibCompatWith24 On
    Require shib-attr homeOrganizationType university uas
    ```
Changes in Shibboleth SP affecting Apache

- Enforce that **ALL** `Require` directives must be satisfied (default is that **ANY** `Require` statement must be satisfied):

  - **Apache 2.2:**
    ```
    ShibRequireAll On
    Require ...
    Require ...
    ```

  - **Apache 2.4:**
    ```
    <RequireALL>
    Require ...
    Require ...
    </RequireALL>
    ```
Pitfalls

• `<RequireAll>` and `<RequireAny>` can't be used at all in Apache 2.2 (only in Apache 2.4)

• Before doing an upgrade from 2.2 to 2.4, you should update your Apache configuration accordingly to avoid deprecated directives.
  – Else, the migration might fail.
Further Information

• SWITCHaai Website
  – Shibboleth Service Provider Access Control  
    Consider the differences between Apache 2.2 and 2.4  
    https://www.switch.ch/aai/support/serviceproviders/sp-access-rules.html

• Shibboleth Wiki
  – Apache Configuration  
    Consider the differences between Apache 2.2 and 2.4  
    https://wiki.shibboleth.net/confluence/display/SHIB2/NativeSAPApacheConfig

• Apache Project
  – General instructions to upgrade to 2.4 from 2.2  
    http://httpd.apache.org/docs/2.4/upgrading.html
  – Authentication and Authorization, section "Beyond just authorization"  
    http://httpd.apache.org/docs/2.4/howto/auth.html