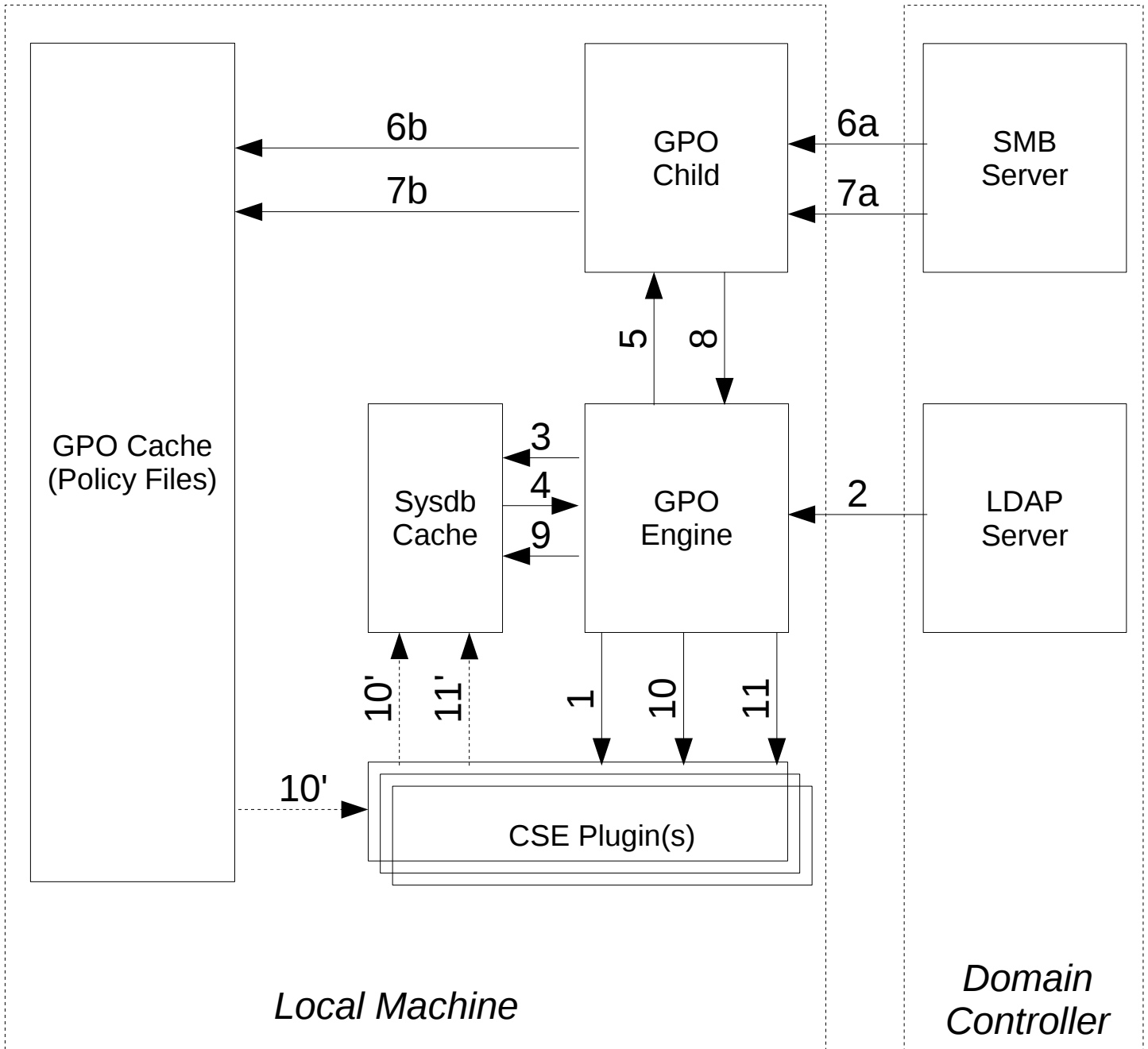


## GPO Processing Data Flow Diagram



This diagram shows the set of steps taken during GPO Processing when ***ad\_gpo\_access\_send()*** is called. The diagram assumes that CSE Plugin registration and initialization has already taken place. The sequence of steps begins with the GPO Engine. The next page gives details for the following three scenarios:

- online mode, *policy\_file\_timeout* has expired (i.e. retrieve fresh policy files)
- online mode, *policy\_file\_timeout* hasn't expired (i.e. use previously cached policy files)
- offline\_mode

### **ONLINE MODE (policy file timeout has expired; retrieve fresh policy files)**

1. GPO Engine calls cse\_preprocess for each registered cse plugin  
(hbac plugin permits or denies access immediately if pam service maps to PERMIT or DENY)
2. GPO Engine retrieves applicable gpo-guids from LDAP server
3. GPO Engine deletes all policy settings from the GPO Result object in sysdb  
for each applicable gpo-guid {
  4. retrieve cache\_entry for gpo\_guid (if any);  
get cached\_gpt\_version and cached\_policy\_file\_timeout;  
in this case, notice that policy\_file\_timeout has expired (send\_to\_child=true)
  5. send smb\_uri components, cached\_gpt\_version, and cse\_suffixes to gpo\_child
  - 6a. gpo\_child retrieves GPT.INI file for gpo-guid
  - 6b. gpo\_child stores GPT.INI in GPO Cache
  - 7a.. if sysvol\_gpt\_version warrants, child retrieves policy files for all cse\_suffixes
  - 7b. if sysvol\_gpt\_version warrants, child stores policy files for all suffixes to GPO Cache
  8. gpo\_child returns status and sysvol\_gpt\_version to GPO Engine
  9. GPO Engine stores sysvol\_gpt\_version in sysdb
  10. GPO Engine calls cse\_process for each registered cse\_plugin
  - 10'. (hbac plugin retrieves policy file from GPO Cache, parses it, and stores settings for **all** gpo\_map\_types to GPO Result object)}
11. GPO Engine calls cse\_postprocess for each registered cse\_plugin
- 11'. (hbac plugin retrieves resultant policy setting for **specific** gpo\_map\_type and applies settings)

### **ONLINE MODE (policy file timeout hasn't expired; use previously cached policy files)**

1. GPO Engine calls cse\_preprocess for each registered cse plugin  
(hbac plugin permits or denies access immediately if pam service maps to PERMIT or DENY)
2. GPO Engine retrieves applicable gpo-guids from LDAP server
3. GPO Engine deletes all policy settings from the GPO Result object in sysdb  
for each applicable gpo-guid {
  4. retrieve cache\_entry for gpo\_guid (if any);  
get cached\_gpt\_version and cached\_policy\_file\_timeout;  
in this case, notice that policy\_file\_timeout has **not** expired (send\_to\_child=false)
  10. GPO Engine calls cse\_process for each registered cse\_plugin
  - 10'. (hbac plugin retrieves policy file from GPO Cache, parses it, and stores settings for **all** gpo\_map\_types to GPO Result object)}
11. GPO Engine calls cse\_postprocess for each registered cse\_plugin
- 11'. (hbac plugin retrieves resultant policy setting for **specific** gpo\_map\_type and applies settings)

### **OFFLINE MODE**

1. GPO Engine calls cse\_preprocess for each registered cse plugin  
(hbac plugin permits or denies access immediately if pam service maps to PERMIT or DENY)
11. GPO Engine calls cse\_postprocess for each registered cse\_plugin
- 11'. (hbac plugin retrieves resultant policy setting for **specific** gpo\_map\_type and applies settings)