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# Working with PAM (Pluggable Authentication Modules)

Scott McBrien  
Curriculum Manager, Red Hat

# What is PAM?

# Configuration files

*/etc/pam.d/*

*/etc/security/*

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# Overview of configuration file locations and content

**PAM Controls**  
**required**  
**sufficient**  
**optional**  
**include**  
**requisite**  
**substack (RHEL7)**

# Trace Through of auth Rules

## Example: sshd

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# Trace through of sshd

## What we saw: /etc/pam.d/sshd

auth required pam\_sepermit.so

auth substack password-auth

auth required pam\_env.so

auth sufficient pam\_unix.so nullok try\_first\_pass

auth requisite pam\_succeed\_if.so uid >=1000 quiet\_success

auth required pam\_deny.so

auth include postlogin

(no auth rules in postlogin)



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# Managing Password Complexity

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**minlen**

**ocredit**

**dcredit**

**ucredit**

**lcredit**

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# Using pam\_tally2.so

# Using pam\_tally2.so in configuration files

# Using pam\_tally2 on the command line

## Other Pointers

- \* **Keep an already authenticated session open**
- \* **Order is important**
- \* **Remember password-auth vs. system-auth**

# Documentation

**pam\_\* manual pages**  
**/usr/share/doc/pam\***

**More security topics?**

**Red Hat Server Hardening (RH413)**

**<http://www.redhat.com/training/courses/rh413>**

**Materials available from <http://people.redhat.com/~smcbrien>**