

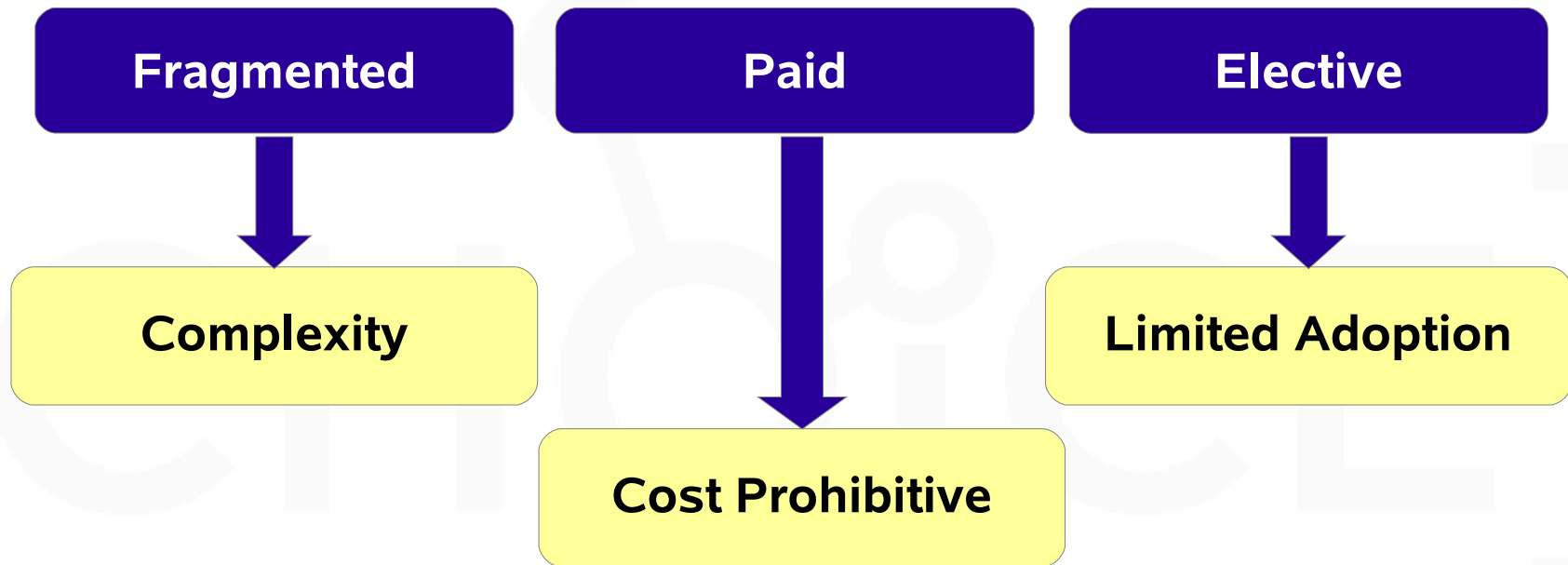


Red Hat Authorization and Authentication Solutions

“Security in a Networked World”



Security - Today



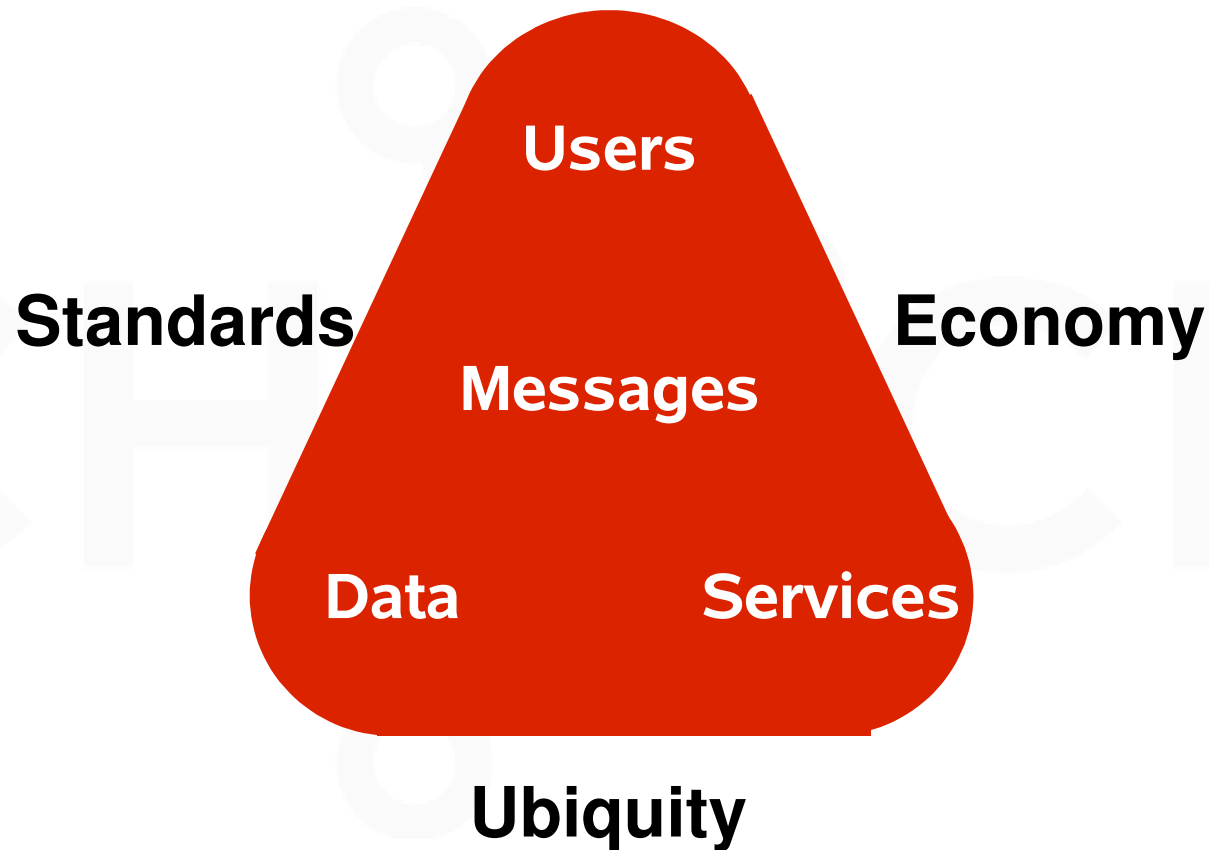
- **Attacks are moving beyond the OS and browsers**
 - Applications – 70% of attacks
 - Security Applications
 - Network Devices
- **Continued Government and Regulatory Advisories**
 - Sarbanes Oxley, HIPPA, GLBA...
 - HSPD12

Security Taxonomy

- Identity, Privacy, and Personal Liberty
- Intellectual Property Security and Protection
- Application Security and Integrity
- Enterprise Security Management
- Identity and Access Management
- Desktop and Content Security
- Network and Traffic Security
- Physical Access Control

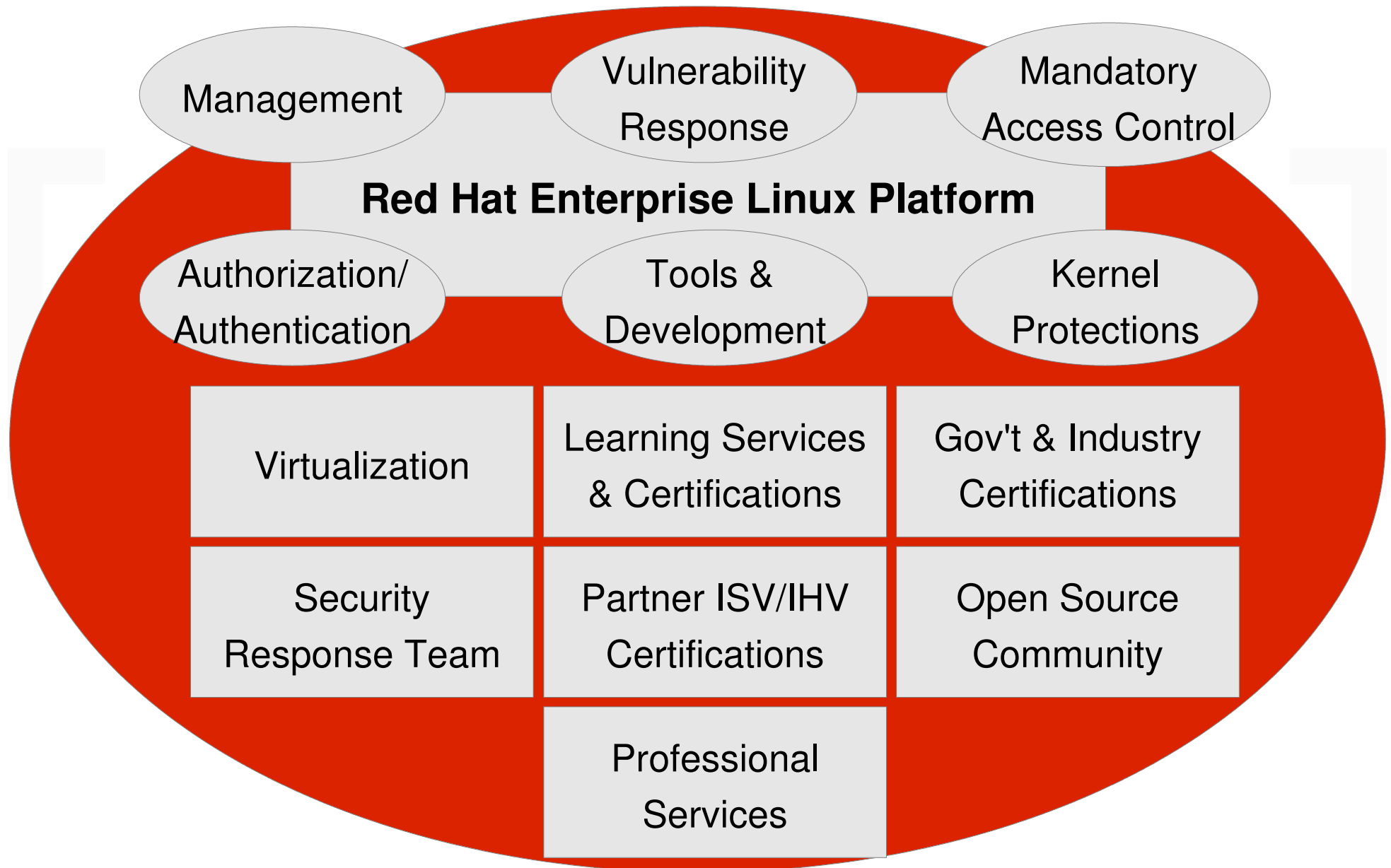
**Requires
Solutions
Beyond
“Products”**

Red Hat Security Focus

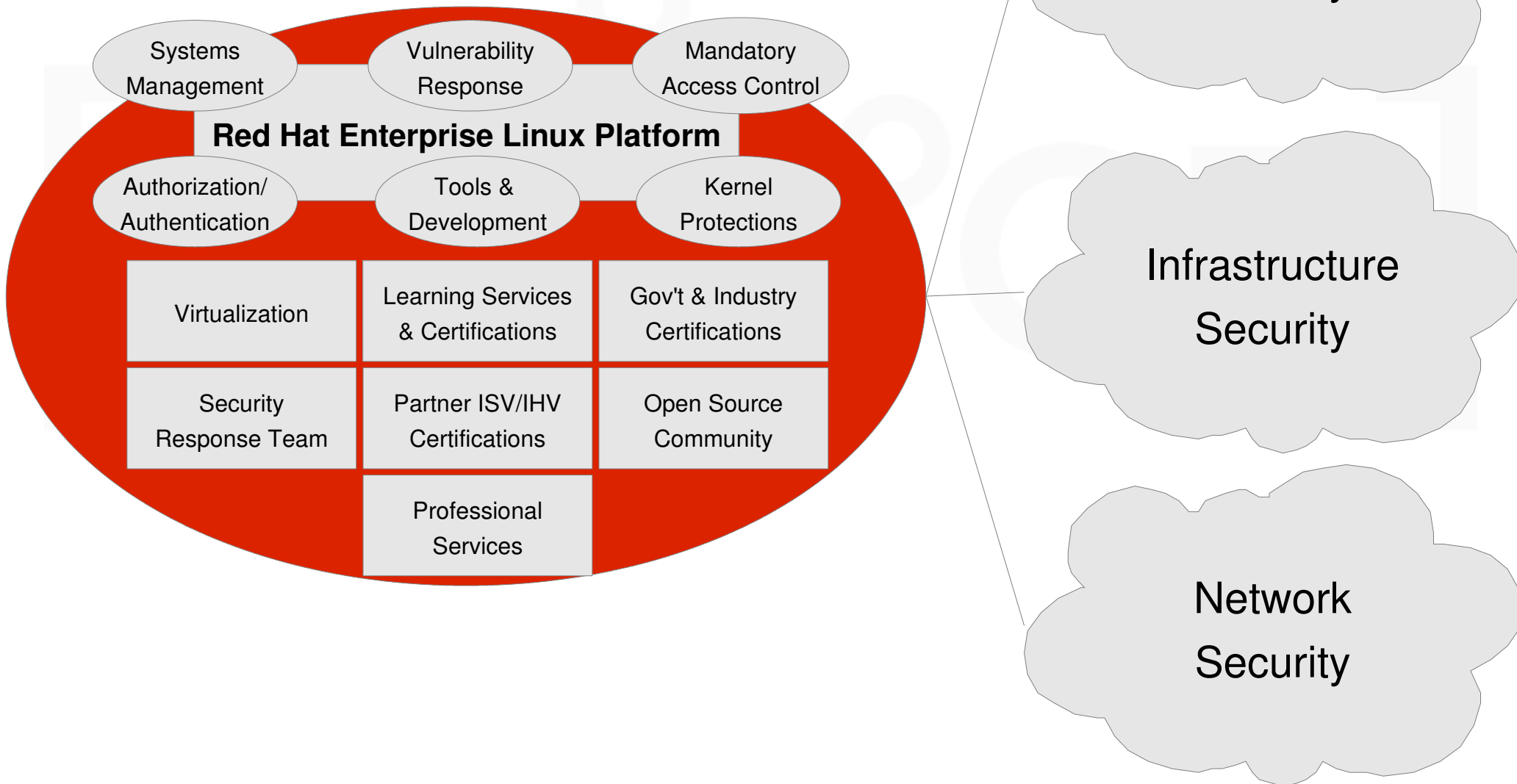


**Building Controlled and Auditable
System, Data, and Resource Access
into the Platform**

Red Hat Security Landscape



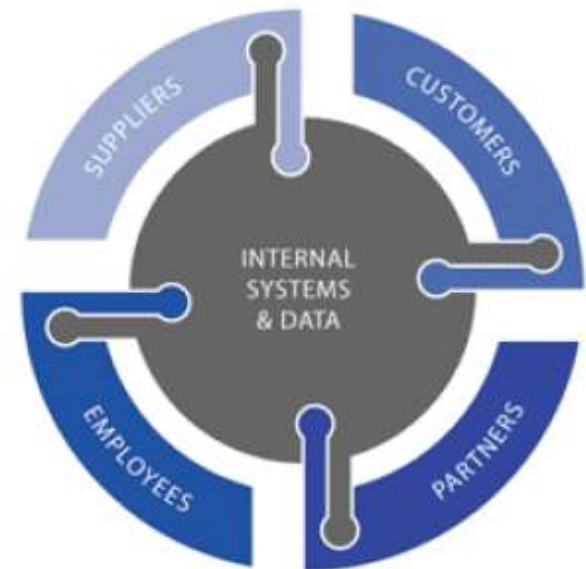
Applied Landscape



Identity and Access Management

Ensuring that the **RIGHT users** get access to **systems, data, and applications** quickly and securely

- The secure control of user information and access rights across multiple systems and business contexts.
- Answers the questions:
 - **Who are you?**
 - **What can you you do?**
 - **Are you who you say you are?**



Source: Burton Group

Identity/Security Management and Red Hat

- Simplify management of increasingly complex environments
- Provide the benefits of Open Source to all components of an enterprise deployment
 - Systems, Identity, Security
- Provide a path for integrated identity and security control
 - Systems, Application and User Management within a common console
 - Single sign on
 - Secure messaging
 - Directory enabled applications
 - Stateless Linux

Red Hat and Netscape

- On December 8, 2004, Red Hat acquired assets from AOL's Netscape Security Solutions business unit, including currently shipping products:
 - **Netscape Certificate Management System (Red Hat Certificate System)**
 - **Netscape Directory Server (Red Hat Directory Server)**
 - Netscape Enterprise Server
- Related (20+) Engineering and Support staff
- *Other Products:*
 - *Netscape Calendar Server*
 - *Netscape Messaging Server*
 - *Netscape Meta-Directory*
 - *Netscape Collabra*
 - *Netscape Delegated Administrator*

Identity and Access Management at Red Hat

Red Hat Directory Server

“Scalable Identity”

Provides appropriate and timely access to resources and applications for all users

Red Hat Certificate System

“Simplified Assurance”

Ensures appropriate access to system resources are granted to only authorized users and applications

Fedora Directory Server

“Commitment to Open Source”

Fedora Directory Server

**“Build an open source project to improve and maintain
a world-class LDAP Directory Server”**

Technology

LDAP Server Core

Administration Server, Console

Core Licensing: GPL + Exception

Permit the development and
distribution of non-GPL plug-ins
Core directory technology remains
open source

Community Involvement

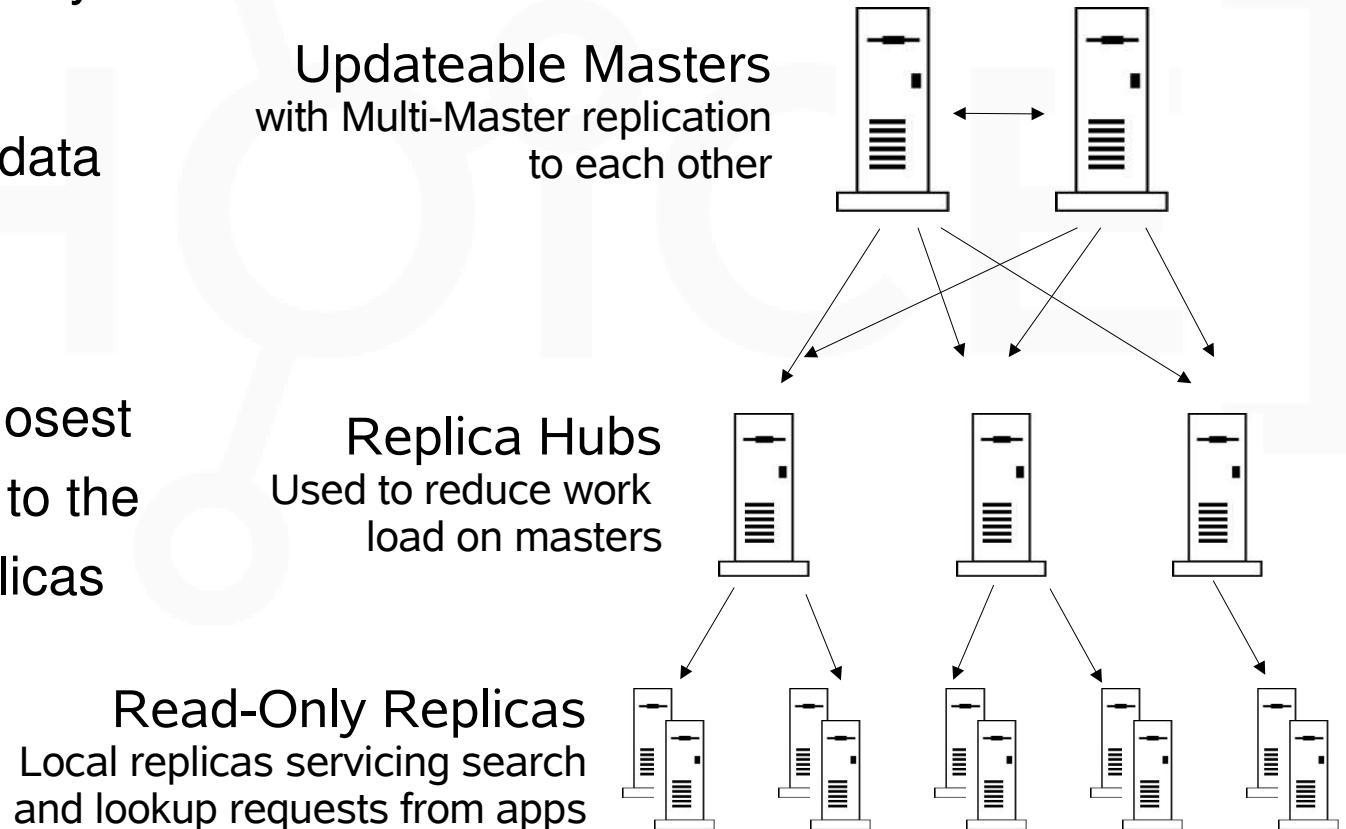
Red Hat Sponsored

Community Supported

Work with other Open Source
projects, such as OpenLDAP,
to encourage the adoption and
evolution of LDAP

Directory Server: Scalability

- Multi-Master Replication
- Replicate for Availability and Performance
- Masters in different data centers, different geographic areas
- Changes made to closest master, propagated to the other masters & replicas



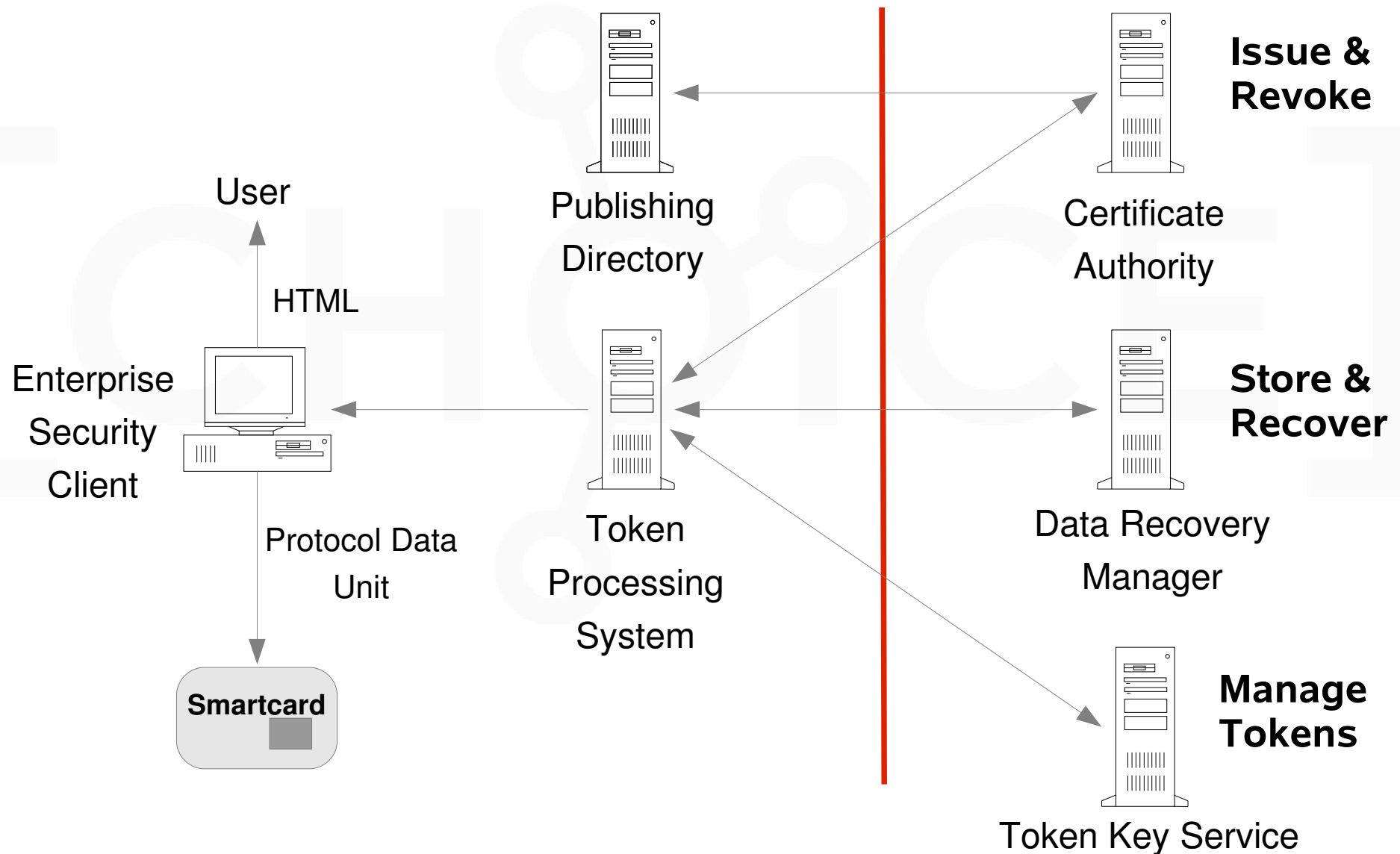
Red Hat Certificate System

- Highly flexible, standards-based solution for Public Key Infrastructure (PKI)
- Unmatched scalability:
 - Issued over 12 million certificates from single server in less than 35 days (~14,000 certificates/hour)
 - 10% of certificates revoked, resulting in 1.2-million-entry CRL
- Government support:
 - FIPS-140 certification
 - Common Criteria certification by NIAP at Evaluation Assurance Level 4 augmented under CMC protection profile

 Cert and CRL Repositories Token Management Certificate Authority Key Recovery Authority

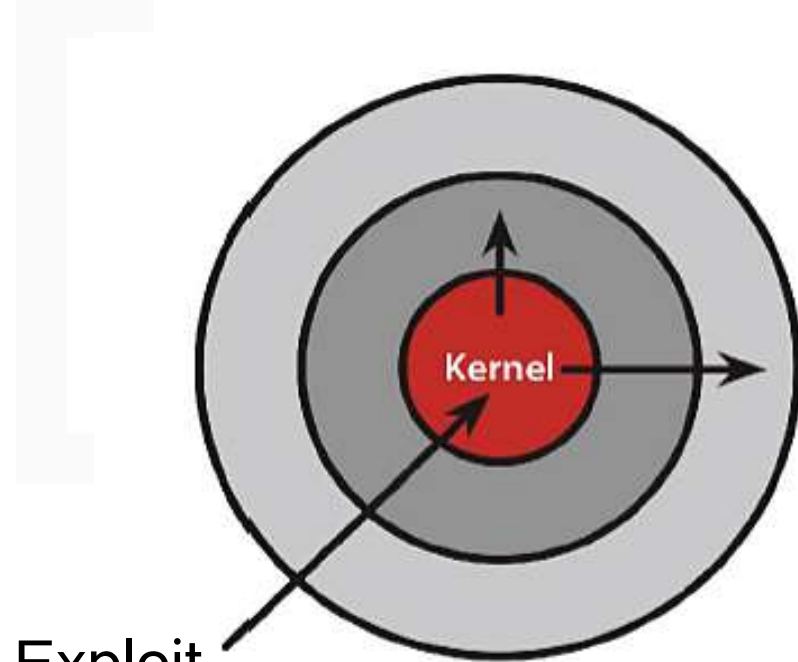
- Support and Integration with Enterprise Linux
- Token Management:
 - Generation of private key by back end
 - Key archival and recovery
 - Secure Token Management communication
- Supports Online Certificate Status Protocol (OCSP) v1 , v2 profile

Red Hat Certificate System



Extended Identity – to the Kernel

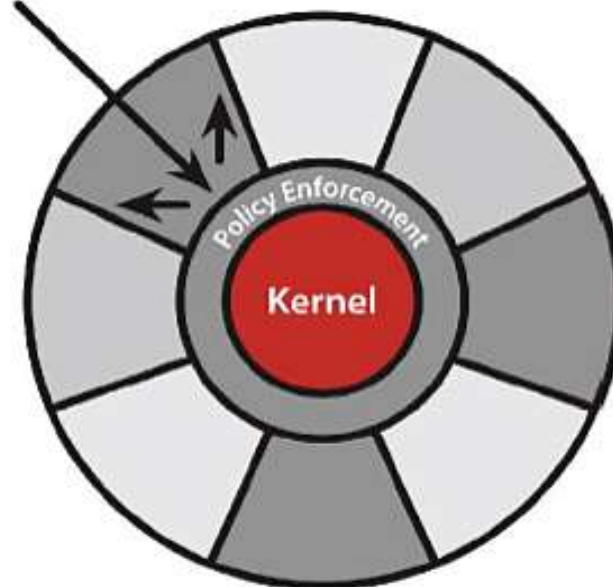
SELinux is a *flexible* Mandatory Access Control architecture within the *standard* Open Source Linux Kernel



Discretionary Access Control

Once a security exploit gains access to privileged system component, the entire system is compromised.

Exploit



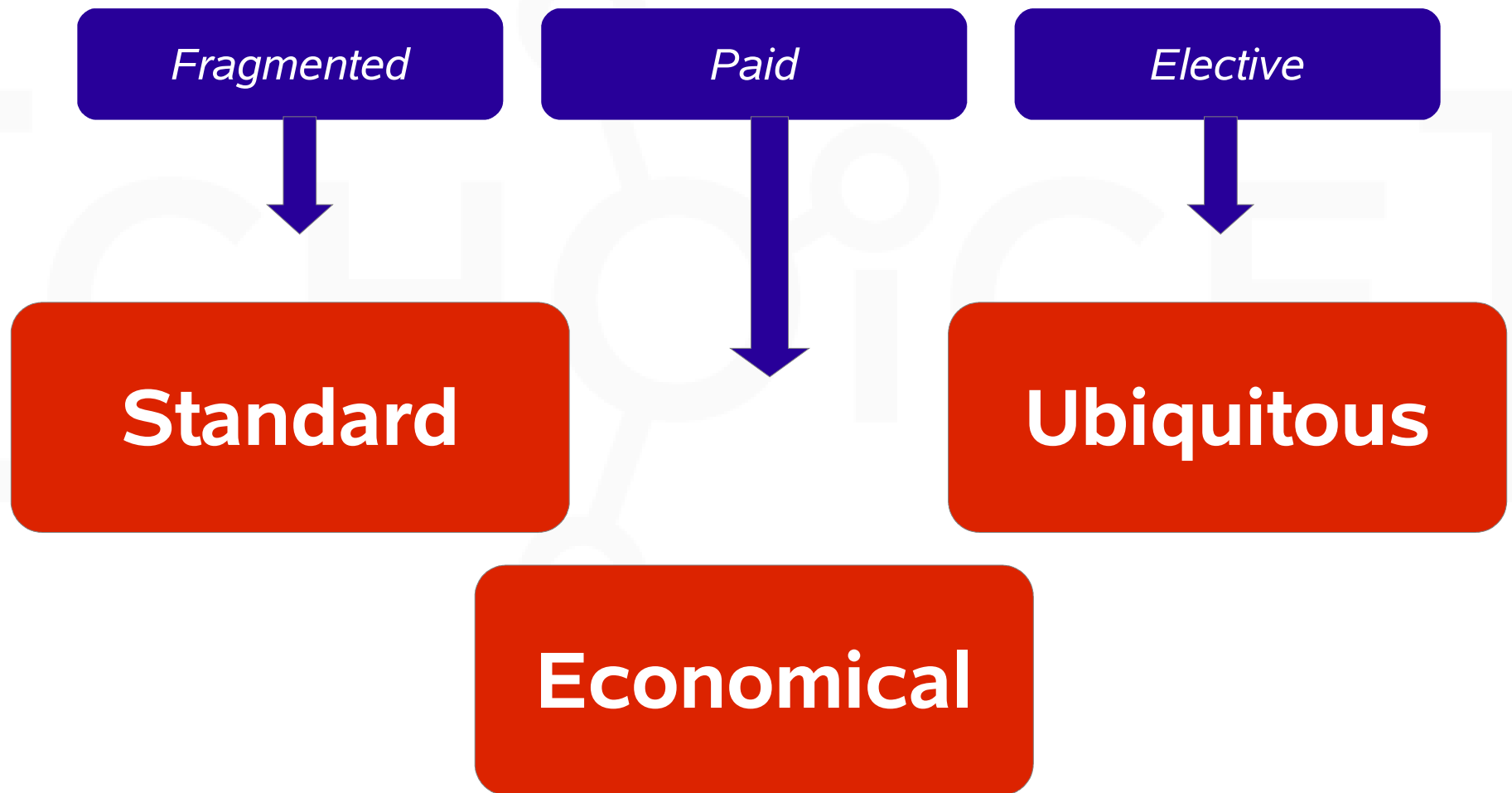
Mandatory Access Control

Kernel policy defines application rights, firewalling applications from compromising the entire system.

Roadmap: Extended OSS Identity Metasystem

- Develop rational authentication from name/password through Kerberos, LDAP, PKI, and smartcards
 - Enterprise Single Sign-on
- Single Sign-on for all forms of authentication, across multiple OS platforms and JEMS
- Develop/Partner with full Identity Management suite, integrated with Red Hat Enterprise Linux and JEMS – **Identity 2.0**
- Support new deployment models
 - Virtualization
 - Stateless Linux
 - SELinux

Building Security In





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