Technology Alliance Program – Solution Brief

RPA Cryptographic Authentication — Thales TCT and Blue Prism

ABOUT

Thales Trusted Cyber Technologies Luna Credential System

Thales Trusted Cyber Technologies (TCT) is a trusted, U.S. based source of cyber security solutions for the U.S. Federal Government. Luna Credential System (LCS) introduces a new approach to multi-factor authentication by maintaining Blue Prism RPA credentials in a centralized hardware security module that is securely accessible by endpoints in a distributed network.

CHALLENGE

The OMB Memo M-19-17 outlines a policy that requires management of digital identities for non-person entities (NPEs) such as software robots. As such, all robots are required to have individual digital identities and credentials that are managed in the same fashion as traditional user identities.

Although robots cannot be issued a physical token, they can utilize multi-factor login capabilities through a centralized, hardware security module-based authentication system.

SOLUTION

LCS is a multi-purpose, secure credential system ideally suited for an environment in which the endpoints cannot use a traditional small form-factor token.

Composed of the Luna Credential HSM and the Luna Credential Client, LCS supports a number of Blue Prism RPA use cases including Windows Logon.

BENEFITS

With LCS, Blue Prism digital workers can use HSM-secured identity credentials for authority to operate in production systems:

Ultra-Secure Hardware Platform
Private keys always remain in the Luna Credential HSM

Compliance

FIPS 140-2, OMB Memo M-19-17, DoD I 8520.02, DoD I 8520.03

A Trusted U.S.-Based Source
LCS has a full, U.S. supply chain and is developed, sold, manufactured and supported solely within the U.S.

USE CASE

RPA Identity Credentials

Blue Prism digital workers are required to have digital identities and credentials to operate in U.S. Federal Government production systems. LCS securely maintains these credentials and provides programmatic interfaces for use. For example, unattended digital workers can use LCS to meet requirements to perform a Windows Logon using identity credentials secured in a FIPS 140-2 certified HSM. LCS also supports unattended or attended robot use of hardware secured identity credentials when the digital worker is authenticating to a PK-enabled application or web site.

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ENTERPRISE BENEFITS

Comply with Mandates

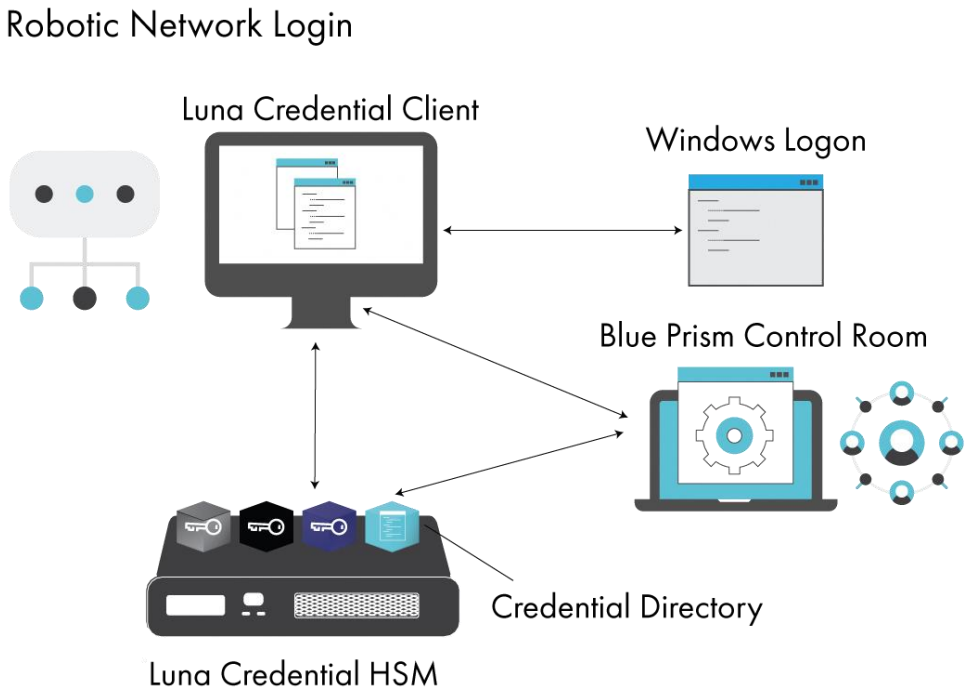
1. FIPS 140-2 Level 3 secured identity credentials
2. OMB Memo M-19-17 requirements for the management of digital identities
3. DoD Instruction 8520.02, PKI and PK Enabling
4. DoD Instruction 8520.03, Identity Authentication for Information Systems
5. Detailed logging and audit tracking of all key utilization, administrator access and policy changes

Scalability

1. Provides a scalable architecture to support growing use of devices and automated technologies
2. Enables access from anywhere by eliminating the need for a physical token

HOW IT WORKS

The Luna Credential HSM within LCS generates and protects PKI robot credentials within the HSM thereby replacing individual tokens. Credentials never leave the security boundary of the HSM and can only be accessed by authorized endpoints over a secure communication link. The HSM provides a scalable architecture supporting multiple independent "credential bins." A credential bin is a cryptographically isolated location within the HSM that contains the private key and associated certificate for individual entities. These identity credentials can only be accessed by endpoints when the correct password for the credential bin is provided. An internal credential directory is maintained by the HSM to correspond bins with entities that access the bins via the Luna Credential Client (installed on the endpoint machine).



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HOW IT WORKS

During any operation that needs a digital worker's certificate and corresponding private key, the Luna Credential Client establishes secure communications to the HSM. Utilizing the credential directory onboard the HSM, the client determines the correct credential bin for the given entity and sends the password to the HSM. Once the password is validated, the process on the endpoint system can proceed to utilize the keys and certificates within the entity's specific credential bin. This password may be entered by a human user, or in the case of a non-person entity, may be supplied by an automated process.

The Luna Credential Client includes a Windows credential provider component that prompts the user for their credential bin password and proceeds to complete the standard Windows Logon using identity credentials residing in the credential HSM. By hooking into the natural authentication flow of Windows systems, the user experience is no different from what users are accustomed to. Using the Luna Login Agent built within Blue Prism, digital workers can execute the Windows logon process autonomously for seamless authentication.

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ABOUT BLUE PRISM

Blue Prism is the global leader in intelligent automation for the enterprise, transforming the way work is done. At Blue Prism, we have users in over 170 countries in more than 1,800 businesses, including Fortune 500 and public sector organizations, that are creating value with new ways of working, unlocking efficiencies, and returning millions of hours of work back into their businesses. Our intelligent digital workforce is smart, secure, scalable and accessible to all; freeing up humans to re-imagine work.

To learn more visit www.blueprism.com and follow us on Twitter @blue_prism and on LinkedIn.

ABOUT THALES TRUSTED CYBER TECHNOLOGIES

Thales Trusted Cyber Technologies, a business area of Thales Defense & Security, Inc., protects the most vital data from the core to the cloud to the field. We serve as a trusted, U.S. based source for cyber security solutions for the U.S. Federal Government. Our solutions enable agencies to deploy a holistic data protection ecosystem where data and cryptographic keys are secured and managed, and access and distribution are controlled.

For more information, visit www.thalestct.com.