LOGINTC CONTINUES TO INNOVATE HOW MULTI-FACTOR AUTHENTICATION SECURES ORGANIZATIONS ASSETS

Cyphercor is a cybersecurity company that is improving how organizations secure employee remote access and company assets. They've developed a multi-factor solution which combines enterprise grade security and best in class user experience into one comprehensive package. Cyphercor deployed their LoginTC solution on the CENGN Testbed to validate their new adaptive authentication functionality with Cisco's ASAv to add another layer of security to their solution's resume.

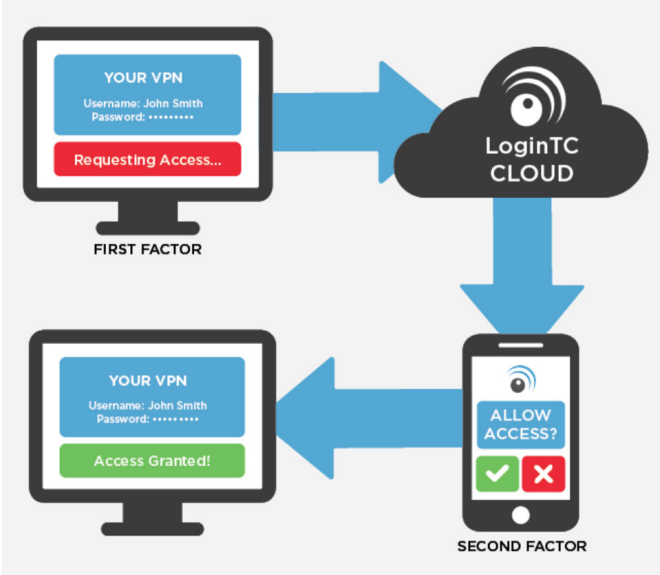
CYPHERCOR INC.

Cyphercor offers a cybersecurity solution for businesses to ensure only authorized personnel have access to their VPN and online portals. Their flagship product is titled LoginTC and turns phones, tablets, or desktops into an adaptive authentication enabled secure token that keeps VPNs safeguarded from potential intruders. Taking into account the behaviour and context of the login, LoginTC's adaptive authentication enables additional security measures if a login seems out of ordinary. The goal of Cyphercor's project at CENGN was to add the widely used Cisco ASAv to their growing list of VPN and secure remote access solutions that are compatible with LoginTC. With their solution deployed on the CENGN Testbed, Cyphercor tested the integration and functionality of LoginTC with the Cisco ASAv VPN.

SINGLE-FACTOR AUTHENTICATION WORRIES

The idea of having an 8+ character password as the only measure of defense between a hacker and confidential information on your organization's VPN should be worrisome. The need for greater security measures around VPN access has led enterprises to search for more dynamic security solutions. The struggle lies in the fact that these security solutions must be usable, intuitive, and efficient for the end user. Organizations want to ensure their VPN is secure and is only accessed by authorized users, but they don't want employee complications when attempting to log on. Through LoginTC, Cyphercor aims to address the demand for an additional layer of user-friendly security.reconstruct the entire file from the encrypted fragments stored on individual storage nodes.

PROJECT CONTRIBUTIONS	
CENGN	• Cisco ASAv • Dedicated Project Space
LoginTC	• LoginTC Cloud Server • LoginTC Admin • LoginTCRadius Connector • LoginTC Mobile Application • Mobile Phone



Authentication Process

LOGINTC: SIMPLE YET SECURE

Cyphercor's LoginTC starts by having users download the application, which is available for devices on iOS, Android, and Blackberry. LoginTC integrates with existing first factor deployments such as active directory, LDAP, and RADIUS. A second factor authentication token is created when the user enters the administrator-issued tokens in the LoginTC app. When a user tries to log on to the VPN, the mobile app receives a push notification showing the IP address and geographic location of the access request. Users can then choose to accept or deny access to the VPN. If the user accepts the request from the push notification, access is then granted to the VPN. LoginTC has created an adaptive authentication process that takes several variables such as the behaviour and context of the login into consideration. If these variables seem out of the ordinary in comparison to past login factors or pass a pre-determined level of risk, LoginTC will prompt the user for additional information before granting access to the VPN or deny the request altogether. Administrators are also notified when a request is out of the ordinary.

CENGN MEMBERS

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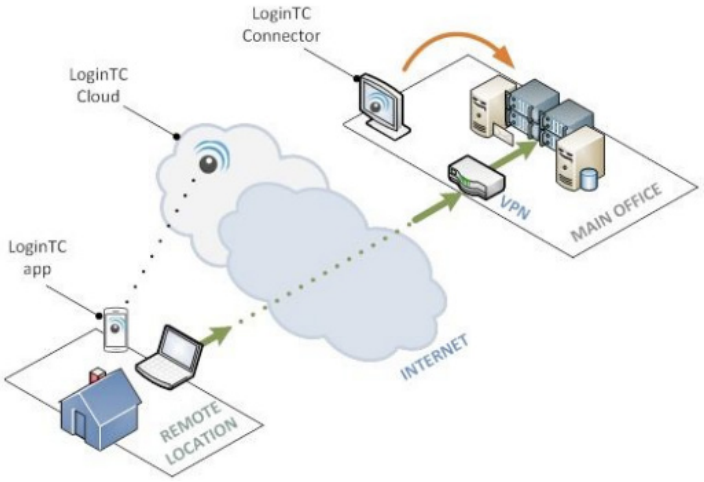
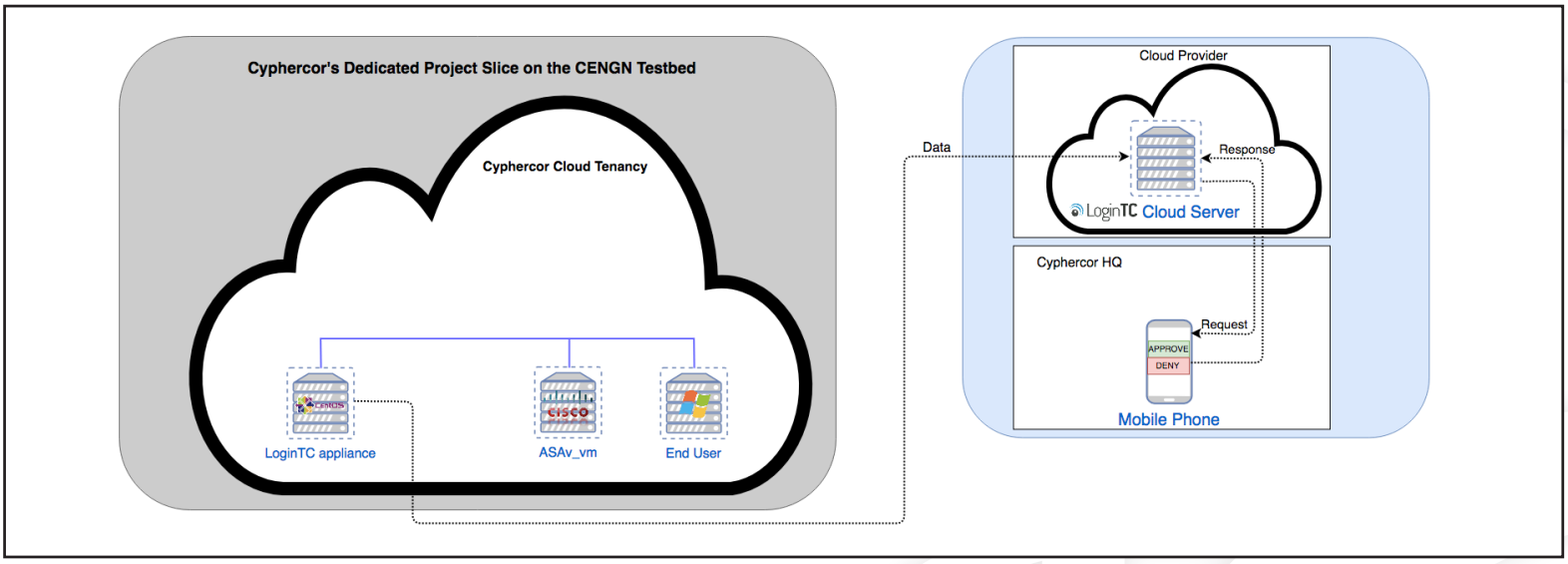
INTEGRATING LOGINTC WITH CISCO'S ASAv

The purpose of Cyphercor coming to CENGN was to successfully validate the integration of LoginTC's adaptive authentication functionality with Cisco's ASAv. Within a project slice on the CENGN Testbed, a Cyphercor user entered their username and password to access the VPN. Cisco's ASAv sent an authentication request to the LoginTC connector, which allowed the login credentials to be verified with the organization's first-factor directory (LDAP, active directory, or RADIUS). Once verified, an authentication request was sent to LoginTC cloud services and a push notification popped up on the user's mobile device or desktop. LoginTC's connector stayed pending until the user responded to the authentication request or the timeout was reached. The user chose to accept or deny the request and a protocol relayed the decision back to the VPN where the user gained access to the VPN or was rejected.



Connecting to your office VPN with LoginTC



THE RESULTS

Several tests were run to validate LoginTC's adaptive authentication functionality. LoginTC's adaptive authentication mode was validated for client-based, clientless access, and a custom user interface. Client-based is when the VPN that is accessed through a software application installed on a desktop, clientless is a URL that redirects the user to the VPN login page. A custom user interface allows the choice of different authentication options for the user. Different adaptive authentication variables such as time of day, frequency, time to complete authentication, and IP addresses were used in the testing to enable additional security measures.

CONCLUSION

Having their own virtual environment on the CENGN Testbed allowed Cyphercor to deploy different configurations and test upcoming innovative features of their product, which will accelerate their product development cycle. CENGN was able to customize the environment to fit Cyphercor's needs and replicate the company's average customer environment. This CENGN project has proven the functionality of Cyphercor's product, LoginTC, allowing them to widen their market with confidence to any potential customers using Cisco's ASAv.

CENGN
CENTRE OF EXCELLENCE IN NEXT GENERATION NETWORKS

Rick Penwarden, Marketing Manager
rick.penwarden@cengn.ca
cengn.ca/projects

Diego Matute, Founder
dmatute@cyphercor.com
https://www.logintc.com/

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