

DATASHEET

# uCPE Security Staging



## Securing Service Integrity

uCPEs (universal Customer Premises Equipment) provide the opportunity for delivering flexible telecommunications services based on VNFs (Virtual Network Functions) running on top of a virtualization layer (hypervisor).

The majority of uCPEs are based on an open architecture, often built upon Intel x86 environment. The openness of these platforms can be, in some cases, a security risk. The objective of the uCPE security staging service is to provide an answer to mitigate those risks.

Security staging is an optional service provided by Ekinops that effectively prevents tampering with the uCPE. The service comprises two elements:

- A secure boot mechanism prevents the loading of any other hypervisor than the Ekinops OneO6-LIM
- The loading of a device certificate onto the uCPE that authenticates the uCPE with the provisioning server as a recognized and trusted device.

## Secure Boot



Secure boot prevents the loading onto the uCPE of any operating system other than the one signed by Ekinops. It uses the secure-boot capability of UEFI boot. In practice, uCPE devices are protected by this mechanism as only the validated OneOS6-LIM can run as the hypervisor.



## Device Certificates



When uCPEs are used in an environment where auto-provisioning (also called Zero Touch Provisioning, ZTP) is applicable, a device certificate provides a secure way to prove the genuine staging of the uCPE. Only devices that can present the X.509 certificate (stored on the file system of the uCPE) to the provisioning server will be allowed to connect to the network. In addition, the certificate is protected by a private key, which uses the TPM (Trusted Platform Module) within the uCPE. The auto-provisioning will only be possible for devices that pass through the official staging process.

The Ekinops security staging service is primarily based upon Ekinops-signed certificates. The use of customer-signed certificates is also a possibility. This is project-based and will require discussion and specification agreement with the customer.

## How to Order uCPE Security Staging

uCPEs ordered via Ekinops already include the standard staging service which loads the OneOS6-LIM. Ekinops, at a fee, can also provide a uCPE staging service for third party uCPEs.

The uCPE Security Staging is an additional service, applicable to both the standard staging and third party uCPE staging

Product Code	Product Description
540070	Certificate and Secure boot add-on

See also

Product Code	Product Description
540064	uCPE Factory staging (for third party uCPEs)

More info on Ekinops Virtualization Services [here](#).

More info on Ekinops Security Services [here](#).

## About Ekinops

Ekinops is a leading provider of open and fully interoperable Layer 1, 2 and 3 solutions to service providers around the world. Our programmable and highly scalable solutions enable the fast, flexible and cost-effective deployment of new services for both high-speed, high-capacity optical transport networks and virtualization-enabled managed enterprise services

Our product portfolio consists of three highly complementary product and service sets: Ekinops360, OneAccess and Compose.

- Ekinops360 provides optical transport solutions for metro, regional and long-distance networks with WDM for high-capacity point-to-point, ring and optical mesh architectures, and OTN for improved bandwidth utilization and efficient multi-service aggregation.
- OneAccess offers a wide choice of physical and virtualized deployment options for Layer 2 and Layer 3 access network functions.
- Compose supports service providers in making their networks software-defined with a variety of software management tools and services, including the scalable SD-WAN Xpress.

As service providers embrace SDN and NFV deployment models, Ekinops enables future-proofed deployment today, enabling operators to seamlessly migrate to an open, virtualized delivery model at a time of their choosing.

A global organization, with operations in 4 continents; Ekinops (EKI) - a public company traded on the Euronext Paris exchange - is headquartered in Lannion, France, and Ekinops Corp., a wholly-owned subsidiary, is incorporated in the USA.

