
IBM Z
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IBM Fibre Channel Endpoint Security

Frequently Asked Questions

Worldwide



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IBM Fibre Channel Endpoint Security

What was the SOD that was announced in September with the IBM z15™ Model T01 about IBM Fibre Channel Endpoint Security?

In the future IBM intends to provide Fibre Channel Endpoint Security to extend pervasive encryption on IBM Z®, providing additional data protection and helping to achieve compliance mandates.

What was announced on January 14, 2020?

IBM Fibre Channel Endpoint Security is a new end-to-end solution for the IBM z15 T01 that is designed to provide a means to help ensure the integrity and confidentiality of all data flowing on Fibre Channel links between authorized server and storage devices, creating a trusted storage network that encrypts data in flight.

What is the value of IBM Fibre Channel Endpoint Security?

IBM Fibre Channel Endpoint Security, along with IBM Z Data Privacy Passports and IBM Z Data Privacy for Diagnostics, is designed to contribute to the IBM Z approach of encryption everywhere. It is a new end-to-end solution that helps ensure all corporate and client data is accessed only by trusted servers and storage devices, and the integrity and confidentiality of the data are protected as it is exchanged over Fibre Channel links.

There is also value internally as the use of Fibre Channel Endpoint Security allows you the ability to provide auditable information verifying that your customer data is only accessed by trusted IBM Z and storage devices. It should also help to eliminate insider threats of unauthorized access to your data in-flight.

Will I need new hardware on my Z to take advantage of Fibre Channel Endpoint Security?

Several features are required on the IBM z15 T01 to enable IBM Fibre Channel Endpoint Security. These include:

- Endpoint Security Enablement feature (FC 1146)
- CP Assist for Cryptographic Function (CPACF) (FC 3863)
- FICON Express16SA adapters (FC 0436 or FC 0437)
- Hardware Management Console (HMC) 2.15.0. The HMC updated is needed because code on the HMC will enable you to set up the Fibre Channel Endpoint Security.

The IBM DS8900F requires:

- IBM Z Synergy SW bundle
- New 32GFC HA (encryption-capable)
- Existing 16GFC HA for authentication-only

IBM Security Key Lifecycle Manager (ISKLM) (version 3.0.1) is required to serve a shared key to the server and storage boxes and is used to secure messages between the endpoints in which further key material is derived for data protection. It is strongly recommended that ISKLM be configured in Multi-Master mode for High Availability (2 to 4 instances, although will function with a single instance, when failures occur). ISKLM runs on Linux® on Intel®, Power® and Z platforms and under Microsoft® Windows® and AIX®.

Will I be able to use Fibre Channel Endpoint Security on z15 T02?

No. IBM Fibre Channel Endpoint Security cannot be used for either Encryption or Authentication on z15 T02. The Endpoint Security Enablement feature (FC 1146) requires at least one FICON Express16SA adapter, which is not supported on z15 T02.

What operating systems can take advantage of Fibre Channel Endpoint Security?

The feature is functionally transparent to the operating system, however for monitoring and auditing purposes, an operating system support is needed. IBM Fibre Channel Endpoint Security is supported at a minimum by one of these operating systems:

- z/OS® V2.4 with PTFs, z/OS V2.3 with PTFs, or z/OS V2.2 with PTFs
- z/VM® V7.1 with PTFs
- z/VM V6.4 with PTFs
- Linux on IBM Z - IBM is working with its Linux distribution partners to provide support in future distribution releases.

Can I use any other storage than the DS8900F to gain the advantage of Fibre Channel Endpoint Security?

No, however IBM Fibre Channel Endpoint Security also works across FICON® Channel-to-Channel links, so it can be enabled across z15 T01 FCTC system connections, independent of any additionally attached storage controllers.

Is there a required order of installation and configuration of the 3 solution components (e.g. the z15 T01, the DS8900F, and ISKLM)?

No, the solution components can be installed and configured in any order, although the sequencing used could have an effect on the level of disruption required to enable the function (ranging from no disruption to requiring CU ports to be 'bounced').

Can I use the same ISKLM instances that I currently have set up for my DS8900 'data at rest' encryption with IBM Fibre Channel Endpoint Security?

The distributed versions of ISKLM at level 3.01 and higher do support both 'data at rest' and IBM Fibre Channel Endpoint Security offerings. However, the z/OS version of SKLM does not support IBM Fibre Channel Endpoint Security.

Are there any SAN fabric pre-requisite firmware levels required before enabling IBM Fibre Channel Endpoint Security?

Yes. You should refer to the Resource Link® webpage for qualified switch firmware levels before enabling the IBM Fibre Channel Endpoint Security functionality. If appropriate switch firmware levels are not applied, encrypted traffic will not flow successfully through the SAN.

Does the IBM Fibre Channel Endpoint Security solution apply to HyperLinks?

No. This solution only applies to connections over a Fibre Channel transport, so does not apply to zHyperLinks.



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