

# Verification CoStart: Verification IP

**Accelerate IP and Subsystem/SoC verification with Synopsys protocol and methodology experts**



## Overview

With the growing use of the internal and third-party IPs, verification engineers are depending more and more on the use of Verification IP (VIP) to accelerate subsystem and SoC verification. However, due to lack of protocol expertise, engineers are spending a lot of time trying to integrate these VIPs into their test environments. This lack of expertise is impacting project schedules as verification engineers spend time trying to understand the protocols to develop the tests.

## About Verification CoStart for VIP

Verification CoStart enables customers to accelerate adoption of new technologies and increases productivity in their verification environments.

Verification CoStart for VIP is a 10-day service where Synopsys engages with the customer's verification team to accelerate their knowledge of the identified protocol. Synopsys consultants will assist the customer in understanding the protocol basics, assistance in integrating the VIP with their testbenches and helping in running a few major scenarios, ensuring that customers can work with high productive verification environment beyond the Verification CoStart.

The CoStart can be delivered for any of the following protocols. Please contact your Synopsys representative if you don't see the protocol you are interested in listed here.

- Memory: DDR5/4, LPDDR5/4, HBM3/2
- Flash Memory: eMMC, ONFi, SD
- Storage: NVMe, SAS, SATA
- USB4/3, eUSB
- PCIe Gen6/5/4, CXL, CCIX, CXS
- MIPI, DisplayPort, HDMI
- AMBA: CHI, AXI, ACE, AHB, APB
- Ethernet 800G/400G/200G/AVB

## Verification CoStart VIP Services

As part of the engagement, Synopsys experts will work closely with customer's engineers to enable the following:

- Introduction to protocol basics (if needed)
- Introduction to VIP verification features including APIs and debug aids, checking model, coverage model and collateral
- Verification approach and topology discussion
- Testbench architecture guidance
- Automated testbench generation, basic testbench integration and configuration of IP with VIP
- Review of common scenario examples: customer sequence creation, error Injection sequence, debug flow review and example, and integration of VIP test suite (if customer has purchased Synopsys VIP test suite)

## Assumptions and Dependencies

- Customer's engineers will be available for consultation with Synopsys consultants
- Synopsys engineers will have access to customer's design environment either directly or through a customer's engineer
- Customer has identified the engineers who will go through the hands-on training program

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