

# Generate Virtualized IMS Development and Testing Environments

Creating and maintaining multiple IMS development and test systems can be a slow, expensive and technically daunting task. In today's rapidly changing business conditions, companies are struggling to provide IMS development environments for new initiatives in a timely manner. COPE virtualizes IMS systems, enabling new development images of IMS to be available practically on demand, significantly reducing the time, costs and technical difficulties associated with creating completely new IMS subsystems.

## OVERVIEW

In a standard IMS environment, resources must be defined and compiled for every single application as well as for every stage of development, testing, training and system integration work within each application.

Each of these IMS system environments requires its own Control Region, separate Message Regions as well as individual DBRC and DL/I address spaces. Adding further complexity, it can also include connections to DB2 and CICS regions. Additionally, a unique set of database, program and transaction resources needs to be created for each IMS system environment.

There is a great deal of database administration required to support multiple physical IMS system environments. A database administrator (DBA) must compile this collection of IMS resource specifications separately for each stage of application development and testing to reserve the physical database resources required for that IMS system.

## COPE

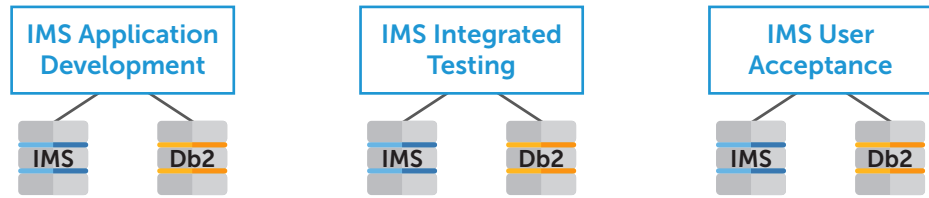
COPE generates virtualized development and testing environments for IMS applications. COPE transforms physical resources for different stages of application development into virtualized resources that are accessible through multiple logical IMS systems. All that the DBA needs to do is change a set of required parameters, which are then copied and compiled by COPE to create virtualized IMS environments.

In addition, an IMS subsystem can be virtualized with multiple versions of a given application, satisfying the need for development, integration and pre-production testing. COPE changes database names, program names and file names before regeneration to allow multiple copies of identically named objects to exist within a single IMS system.

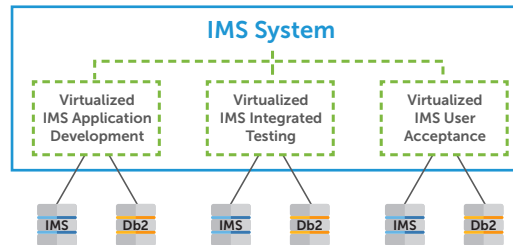
COPE supports IMS Database Control (DBCTL), IMS Data Communication Control (DCCTL) and IMS DB/TM environments.

COPE works seamlessly with **Xpediter** and **Abend-AID**, enabling developers to debug IMS applications in any of the logical IMS systems within the COPE environment. This flexibility provides substantial productivity gains in software testing and deployment of large and complex IMS applications.

Without COPE



With COPE



Single IMS system controls several virtual IMS systems

- Supports IMS DB/TM with Db2, IMS DCCTL with Db2 and CICS with IMS DBCTL
- Significant resource and administrative cost savings
- No changes to application programs

## THE VALUE OF COPE

- Reduces the need to maintain separate IMS systems and related components for every development and testing stage of an IMS application. New initiatives can be accommodated quickly, reducing time to market for critical initiatives such as creating services for cloud, mobile and web enablement.
- Simplifies the development environment by enabling many versions of applications that require IMS database services to be simultaneously executed. Each system can either share or have unique databases, DB2 table programs and MFS formats. This increases business flexibility because customized systems can be created for individual departments, company divisions, sales campaigns and large clients that otherwise would not be economically feasible.
- Supports different versions of batch or BMP programs and IMS databases including Full Function, HALDB, MSDB and DEDB.
- Allows connections to DB2, MQ and CICS subsystems from a single physical IMS system.
- Application developers do not have to change their testing methodologies or compile procedures to use COPE. An extensive set of ISPF-based applications allow IMS objects such as programs and databases, as well as, MFS and DYNALLOC members to be saved and compiled easily. COPE also provides replication capabilities that allow definitions to be automatically copied to several IMS logical systems.
- Developers can use Xpediter and Abend-AID to debug IMS applications within a COPE environment.
- Supports the Dynamic Resource Definition (DRD) feature of IMS.

Learn more at [compuware.com/COPE](http://compuware.com/COPE).

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