

# CLOUDPHYSICS DEPENDENCY MAP

## HORIZONTAL RELATIONSHIP BETWEEN APPLICATION RESOURCES AND SYSTEMS

# Identify dependencies between workloads both in and outside of the datacenter

The Dependency Map combines infrastructure relationships (between VMs, clusters, and datacenters) with logical relationships between application components, enabling a clear understanding of the ways applications and systems depend upon each other in your environment. These dependencies show the scope of resources that need to move or workloads impacted if a workload is changed. These observations are critical when planning which workloads may have egress data costs in the cloud or which applications have complex dependencies when planning an upgrade or outage.

These dependencies can show us the scope of resources that need to move to the cloud or workloads that will be impacted when a workload is changed. These changes can be as simple as an application refresh, or as complex as workloads moving to the cloud. The rich data presented by dependency mapping also allows you to observe which workloads are talking to sources outside of a cluster, datacenter, or organization. These observations can be critical when planning which workloads may have egress data costs in the cloud or which applications have complex dependencies when planning an upgrade or outage.

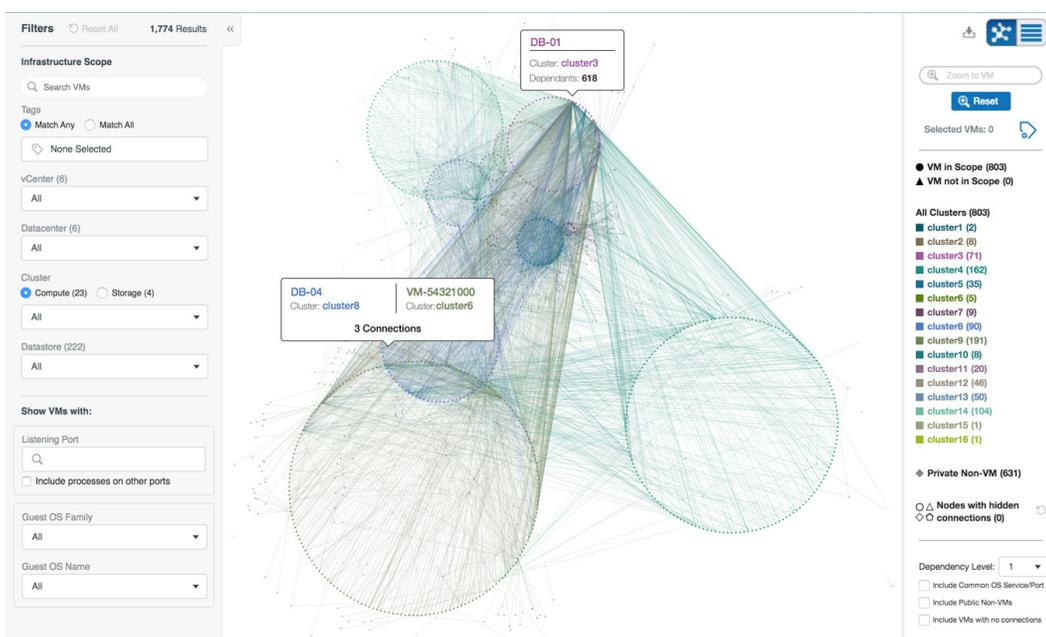
### Features:

- Identify relationships between VMs and dependent resources inside and outside of their environment.
- Identify running processes within an operating system and their dependent systems.
- Identify public and private connections to estimate egress connectivity impact.
- Identify the moving parts and breadth of applications, ie databases, messaging, network services, and user interactions.

The Dependency Map requires a Premium subscription and requires configuring Guest credentials in the most recent vSphere data collector.

### CloudPhysics Dependency Map benefits

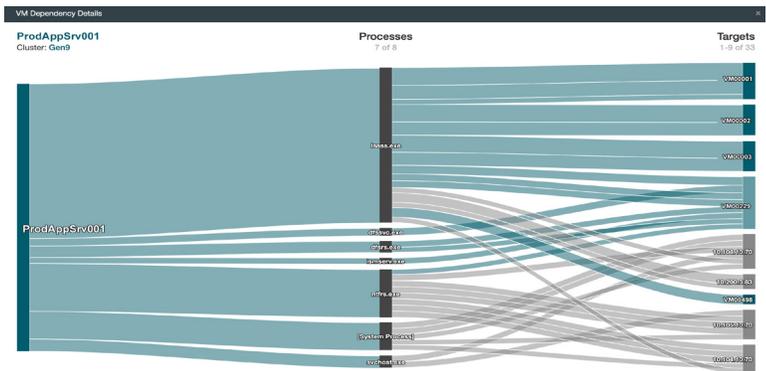
- Visibility into multiple vCenters and data centers from a single console
- Plan datacenter refresh or cloud migrations in days, not months
- From global views down to a single process in seconds
- No agents to install in guest operating systems
- SaaS-based analytics requires no compute or storage on-premises
- Collaboration tools to allow monitoring remotely without access to systems



*With CloudPhysics you can quickly identify processes that communicate between VMs and non-VMs in the datacenter and help locate workloads that may incur egress charges when they move to the public cloud.*

## Visualize Complex Relationships

With the global dependency map view, CloudPhysics users can visualize environments as small as a single VM to as large as multiple data centers in a single view. By grouping objects by clusters and representing the relationships between both internal and external objects, we can quickly see the reach of a single VM. Advanced filters allow you to limit your focus to view objects without their dependencies, or view just one degree of dependencies, or view all dependencies in the data center and beyond. Users can also “reduce noise” by excluding common OS ports, VMs without dependencies, or all external objects from the visualizations. Adding filters by logical groups, tags, OS, and ports can further fine-tune your visualizations. No need to “build your own” dependencies, instead, we find them all for you.



## Identify Processes Connecting Outside the Organization

The heart of dependency mapping is the visibility into the processes and the connections between objects. Rich data tables allow you to quickly view all network-related attributes of process communications such as port, protocol, target, and connection state. Many server applications may be ready and waiting in a listening state while others may have multiple established connections. You decide which data view is most relevant to your needs.

Process	IP	Local Port	Protocol	Name / IP	Target	Port	Address	State
conapp.exe (PID...)	10.200.50.190	8888	TCP	10.200.50.190	8887	Private	ES7A819-ED1	ESTABLISHED
csrss.exe (PID...)	10.200.50.190	Multiple Ports (323)	TCP	prodvm005	5750	Private	ES7A819-ED1	ESTABLISHED
svchost.exe (PID...)	10.200.50.190	61756	TCP	10.200.1.43	8086	Private	ES7A819-ED1	ESTABLISHED
svchost.exe (PID...)	10.200.50.190	62026	TCP	10.200.1.44	Multiple Ports (216)	Private	ES7A819-ED1	ESTABLISHED
lsn.exe (PID...)	10.200.50.190	3870	TCP	10.200.1.90	19468	Private	ES7A819-ED1	ESTABLISHED
mimipriv.exe (PID...)	10.200.50.190	10261	TCP	10.200.50.10	9997	Private	ES7A819-ED1	ESTABLISHED
mgmt.exe (PID...)	10.200.50.190	Multiple Ports (243)	TCP	10.200.50.19	53891	Private	ES7A819-ED1	ESTABLISHED
mgmt.exe (PID...)	10.200.50.190	Multiple Ports (246)	TCP	10.200.50.23	43591	Private	ES7A819-ED1	ESTABLISHED
mgmt.exe (PID...)	10.200.50.190	Multiple Ports (216)	TCP	10.200.50.22	41504	Private	ES7A819-ED1	ESTABLISHED
java.exe (PID...)	10.200.50.190	1551	TCP	devvm005	55248	Private	ES7A819-ED1	ESTABLISHED
java.exe (PID...)	10.200.50.190	723	TCP	prodvm001	2049	Private	ES7A819-ED1	ESTABLISHED
midjourney.exe (PID...)	10.200.50.190	17652	TCP	vm-linetrak	3072	Private	ES7A819-ED1	ESTABLISHED
reporter.exe (PID...)	10.200.50.190	Multiple Ports (6)	TCP	vm-linetrak	51747	Private	ES7A819-ED1	ESTABLISHED
command.exe (PID...)	10.200.50.190	871	TCP	vmconns-angprod	5049	Private	ES7A819-ED1	ESTABLISHED

## Complex Data Analysis Made Simple

In a world of systems requiring distributed microservices, both within and outside the organization, the ability to quantify and identify which applications need monitoring can be monumental. CloudPhysics’ powerful dependency map analytics provide insights into a VM’s processes and its network connectivity and communications. CloudPhysics’ Dependency Map data tables eliminates the need to manually collect, correlate, and analyze disparate data points from multiple sources. Now, days or weeks’ worth of work shrinks to minutes and a few clicks.

### System requirements

CloudPhysics is a software as a service (SaaS) that requires the deployment of our [lightweight virtual appliance \(OVA or OVF\)](#) in your VMware vSphere environment (4.1 and up). VMware Tools or OpenTools required in guest OS.

*CloudPhysics provides you with multiple views of the data so you can see global relationships, a single VMs relationships or dig deeper into the data to report on processes, connection states, ports, protocols, and active connections*

### About CloudPhysics

CloudPhysics is one of the market’s fastest-growing channel intelligence platforms, designed to enable data-driven collaborations. Our platform ensures customers succeed in their adoption of products and services for next-generation IT infrastructure. Combining an agile SaaS platform with a global partner network, CloudPhysics helps customers leverage expert resources to plan and execute public, private, and hybrid cloud migration through analytical assessments and simulations. Headquartered in Santa Clara, CA, CloudPhysics serves thousands of users worldwide across major industries and supports a growing partner network. For more information, visit <https://www.cloudphysics.com> or follow us on Twitter [@cloudphysics](#).