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How to use a Discovery Tool to Supercharge Your ITSM Program

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Hosted By



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Today's Speakers



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Housekeeping

- This “LIVE” session is being recorded
Recordings are available to all Vivit members
- Session Q&A:
Please type questions in the Questions Pane



Webinar Control Panel

Toggle View Window between Full screen/window mode.

Questions



Agenda

- Discovery Tools: Why they're more relevant than ever
- ITSM, ITAM, operations analytics, and network management use cases and functions enabled by an integrated Discovery tool
- Examples of successful integrated Discovery Tool usage across all IT
- HPE Universal Discovery Tool and Applications
- Live Q&A

Poll Question #1

Are you currently using a discovery tool within your IT operations?

Discovery tools: What are they?

Integrated data sources



Passive discovery probe



Agent discovery

Consumers



UCMDB server



Agentless discovery



Agentless and agent discovery



Discovery Tools: More Important Than Ever

Gartner estimates **more than 80%** of mission-critical IT service outages result from **people and process errors and failures**, and of those outages, **over 50%** result from a lack of coordination between **change, release, and configuration management processes**.

*31% of enterprise-level companies are using private cloud in 2016, up from 22% in 2015**

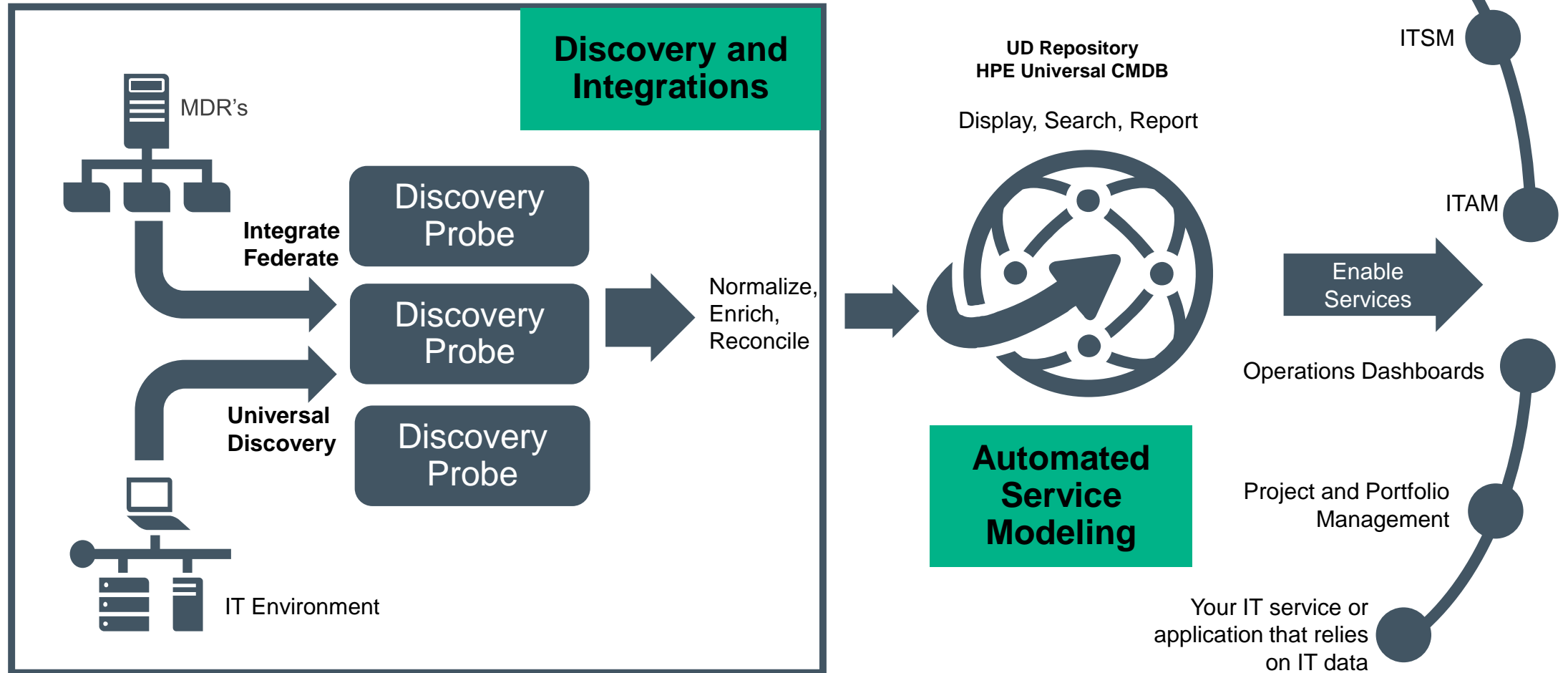
*Enterprise adoption of DevOps has risen to 81% in 2016**

*Lack of resources for cloud migration was the #1 challenge for cloud users in 2016**

RightScale survey: <http://www.rightscale.com/blog/cloud-industry-insights/cloud-computing-trends-2016-state-cloud-survey>

HPE Universal Discovery Architecture

Discovery, Integration, Reconciliation & Service Modeling






ITOM Processes

HPE Configuration Management System

Application	Service Impact & Modeling	Security Operations	Integrated Service Management
Issue	Monitored infra components may not reflect clear impact to Business Services	In-ability to attach incidents to the CMDB to track security trends	Manual or low data quality without an integrated auto-discovery solution
CMS Solution	Comprehensive Impact Analysis	Discovery & Dependency Modeling	Auto-discovered IT Infrastructure
	Labor Cost Reduction and Risk Avoidance	Map threats, security incidents, and vulnerabilities to Ops and IT Structure	Faster MTTR & Fewer Service Disruptions

ITOM Processes

HPE Configuration Management System

Solution	 Cloud Services Discovery	 Data Center Transformation	 Software License Optimization
Issue	In-ability to discover the public or private cloud to manage potential services impact	Manual effort to facilitate time sensitive data for move group analysis, & reporting	Unable to accurately manage license drift or supply vendor “verified” reporting
CMS Solution	Risk Mitigation for Outsourced Services	Auto-discover Move Group Analysis & Reporting	Integrated & Auto-discovered Oracle Databases & Licensing
	Service Continuity & Faster MTTR	Environment Remediation & Lowering TCO	“Verified” Reporting & Oracle Compliance Calculation

Poll Question #2

If you are using a discovery tool, what are the use cases you employ it for?

CMS as the Foundation for the #1 Utility Fortune 500 Company

The Implementation

- Implemented CMS to prepare for Service Manager Upgrade
 - Accessible configuration item repository shared by IT processes
 - Improved inventory of operational assets
 - Improved ownership and support accountability
- Integrated CMS with Service Manager and enabled ITSM Processes
 - Reduced MTTR, increased availability, and reduced support costs.
 - Increased effectiveness and efficiency of impact and risk analysis
- Enable Remaining CMS Processes and Consumers
 - chargeback and cost recovery
 - Data Center migration/consolidation planning

The Results



20% reduction in MTTR to restore service for major incidents



\$2M cost savings by improvement in accuracy of associating server assets



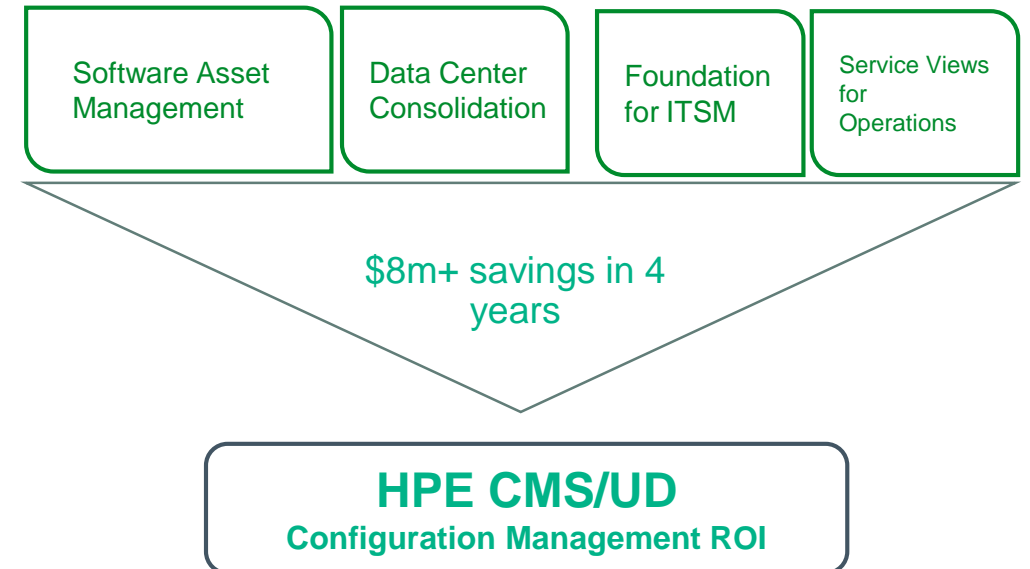
Reduced outages and critical service impact by correctly calculating impact before a change,

The Journey of a Large US Retailer

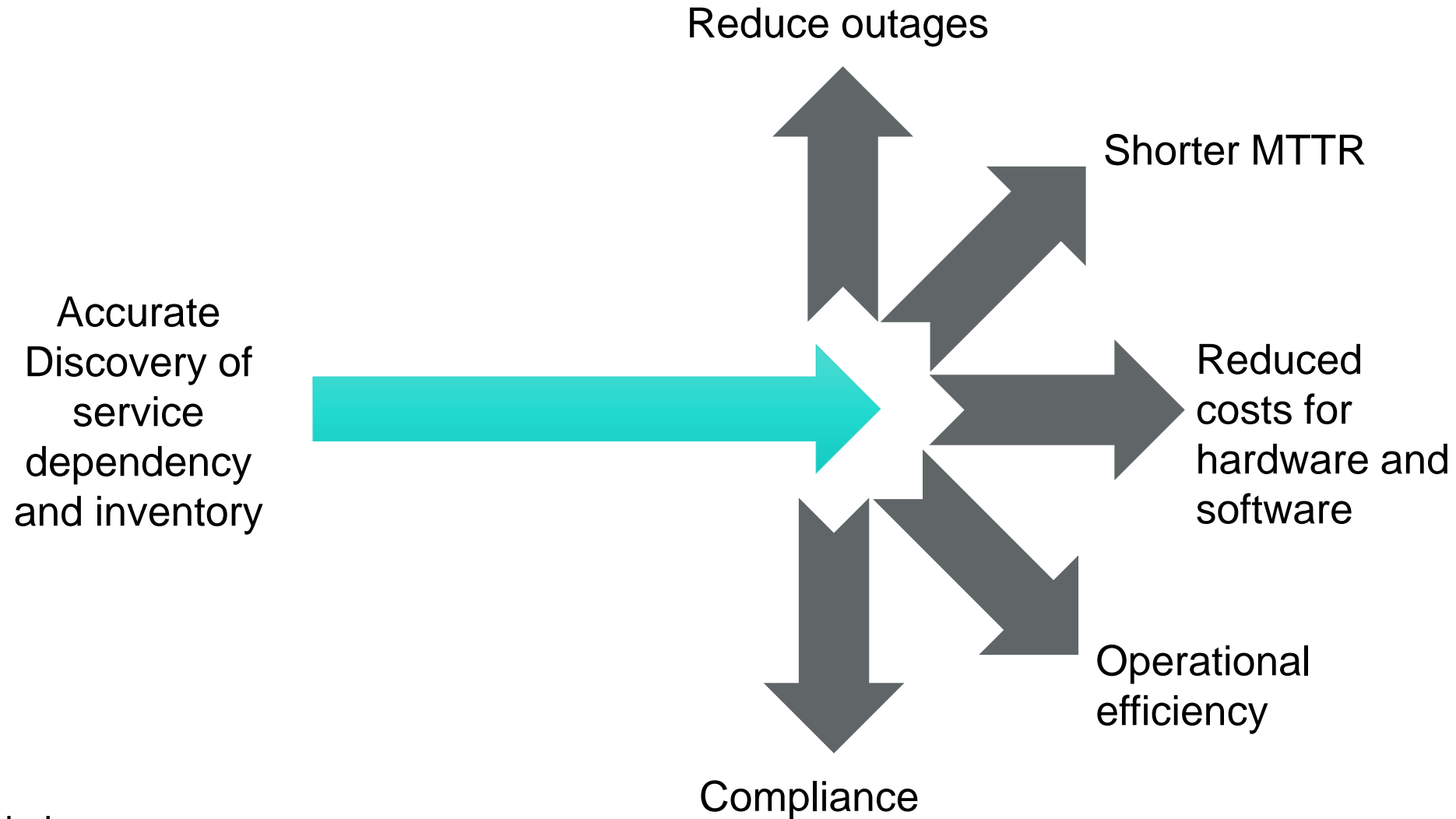
The Implementation

- Discovering 46 datacenters, 10,000 Stores, 218 Distribution centers.
- 110,000 Servers & 240,000 Desktops
- Integrated UCMDB with VCenter, HMC, Atrium, Aperture, TROUX, RTSM, NNMi, Asset Manager
- 500+ Service models mapped
- UCMDB Browser used to view UCMDB discovery data & incident tickets, changes

The Results



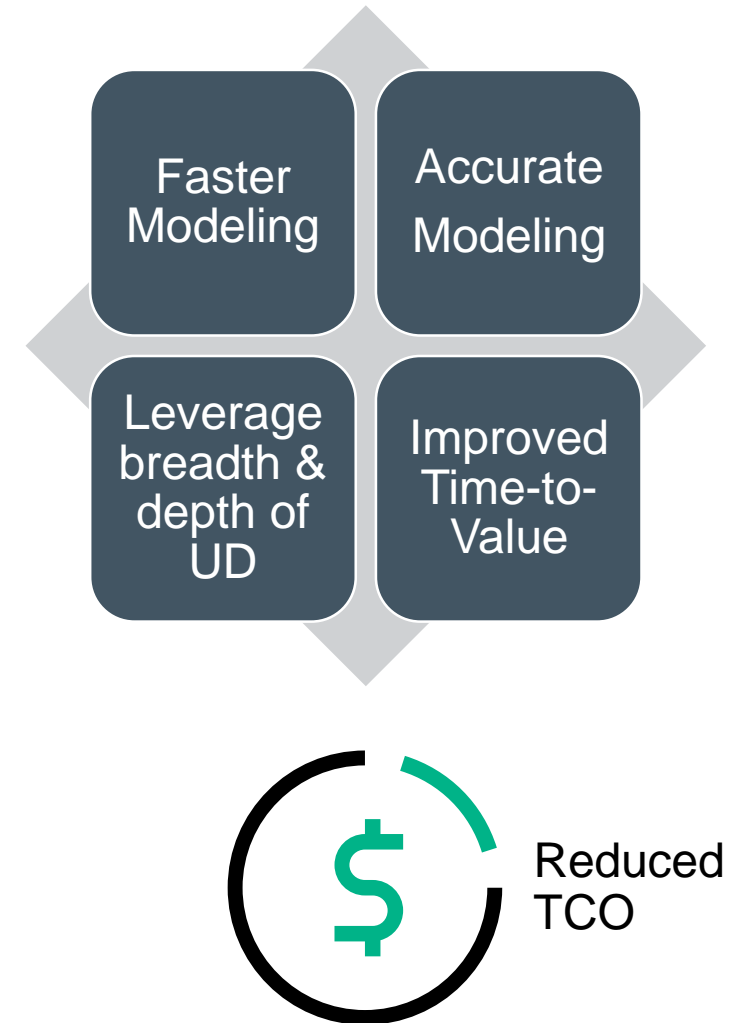
The Discovery Effect - Summary



HPE Automated Service Modeling & Discovery (ASM)

Accurately Discovering, Modeling & keeping Service Maps up-to-date

- ✓ Based on top-down discovery [URL entry point]
- ✓ Lower TTV
- ✓ Combines maps with bottom-up discovery data
- ✓ Added layers: Storage, Network, Virtualization
- ✓ User friendly
- ✓ Based on Configuration and Network traffic



HPE Automated Service Modeling & Discovery



hp Universal CMDB Browser Search Reports **Service Modeling** Notifications

Dashboard > Create Service Model

Create Service Model

Choose Application Type

URL Entry Point

URL
eg: http://myapp:8080/home

Start Modeling + Back to Dashboard



hp Universal CMDB Browser Search Reports **Service Modeling** Notifications

Dashboard > Service: My Test for Plants WAS App Edit Delete Show Navigation Tree

ACTIONS

- Show Additional Info
- Add Layers
- Dependent Services
- Impact Simulation

DISCOVERY

The service map shows a hierarchy starting with a Business Application 'My Test for Plants ...'. This application depends on an Apache web service. The Apache web service depends on two WebSphere AS servers. The left WebSphere AS server depends on three Oracle services: SAMPLEDB, Oracle TNS Listener, and UDSQLCLUSTER1. The right WebSphere AS server depends on three Oracle services: UDRAC2, UDRAC2 (cmsin04), and UDRACV2 (cmsin04). The UDSQLCLUSTER1 service depends on an MS Cluster (UDCluster1), which in turn depends on three Cluster Software (microsoft_cluster) instances.

A Complete Discovery Solution in One Product

Inventory & Dependency Mapping within the same product

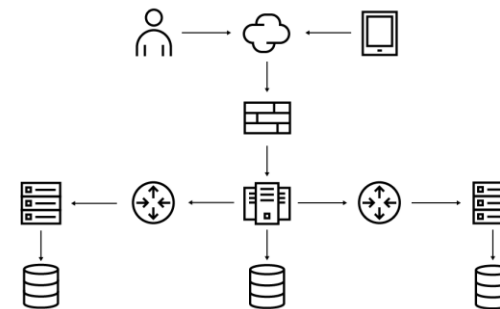
Inventory

- Hardware and Software
- Data Center Servers + Workstations
- Reports – Out of the box and configurable
- Integrated to Asset Management tools for Financial and Software Asset Management



Application Dependency

- Data Center focused
- Configuration items and relationships
- Service Modeling
- Impact Analysis, Change tracking, Data Center transformation



Flexible Implementation Options

Agent-less, Agent-based & Hybrid

Agent Less

- No need to maintain agent per server
- Minimal footprint
- Support for many protocols: SNMP, SSH, SQL, JMX, WMI, SMI-S & more
- One Probe serves Thousands of devices

Agent Based

- Overcome security barriers
- Software utilization tracking
- Enables agent-initiated data reporting (“Call Home”)
- No credentials needed

Hybrid - Flexibility to combine agent-base and agent-less in different zones

HPE Universal Discovery Capabilities

Network Discovery

Storage Discovery

Application

Discover: Databases, Clusters, Middleware (JEE servers, web servers, Messaging), AD, Exchange, SAP, Siebel, etc.

Clusters Load Balancers

Discover: EMC Autostart, HACMP, MS Cluster, HP ServiceGuard, Solaris Cluster, Veritas, Alteon LB, Cisco CSS, F5 Big IP, Microsoft NLB

Virtualization & cloud

Discover: Virtualization topology (Host OS, Hypervisor, Virtual Machines, clusters) VMware, HP nPar/vPar, IBM HMC, Solaris Zone, Oracle VM SPARC, Xen, KVM, ec2, openstack, docker

Inventory Discovery

Discover: Host resources – CPU, File systems, Installed/Running Software, IP Service, Endpoints, Processes, Services, Utilization, etc.

Infrastructure Discovery

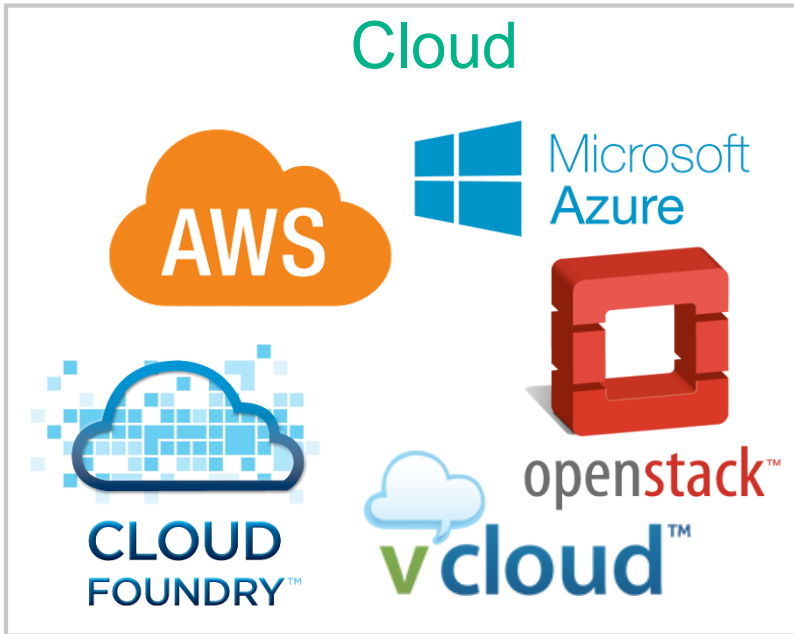
Discover: IP Addresses, Nodes (servers, network devices), IP Subnets
Connections: WMI, SSH, Telnet, HPCMD, UDA, PowerShell

**Advanced
Discovery and
Dependency
Mapping**

**Inventory
Discovery**

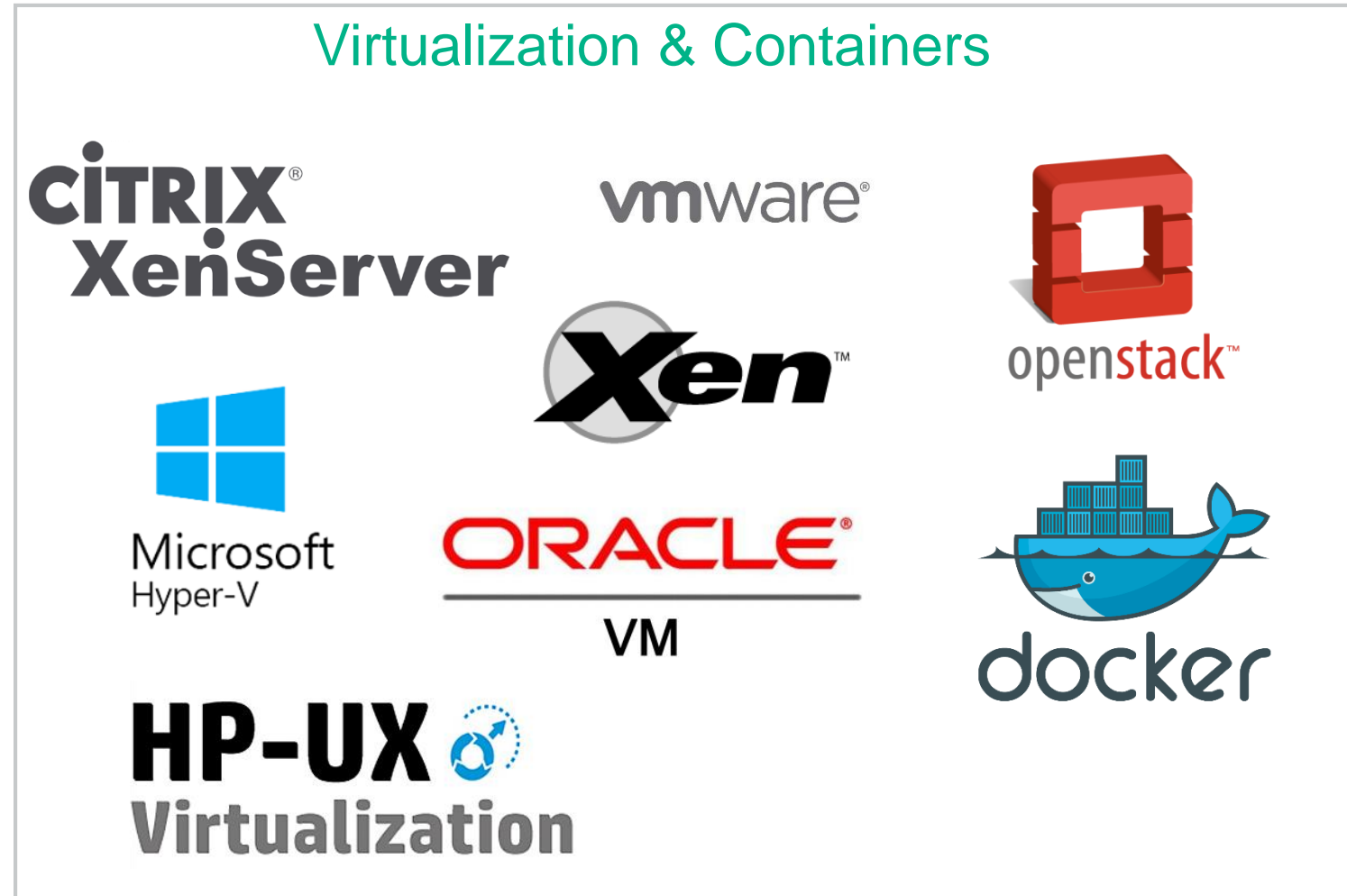
Discovery spans into Cloud, Virtualized and Containers

Cloud



- Direct Discovery or via API
- Private and Public cloud

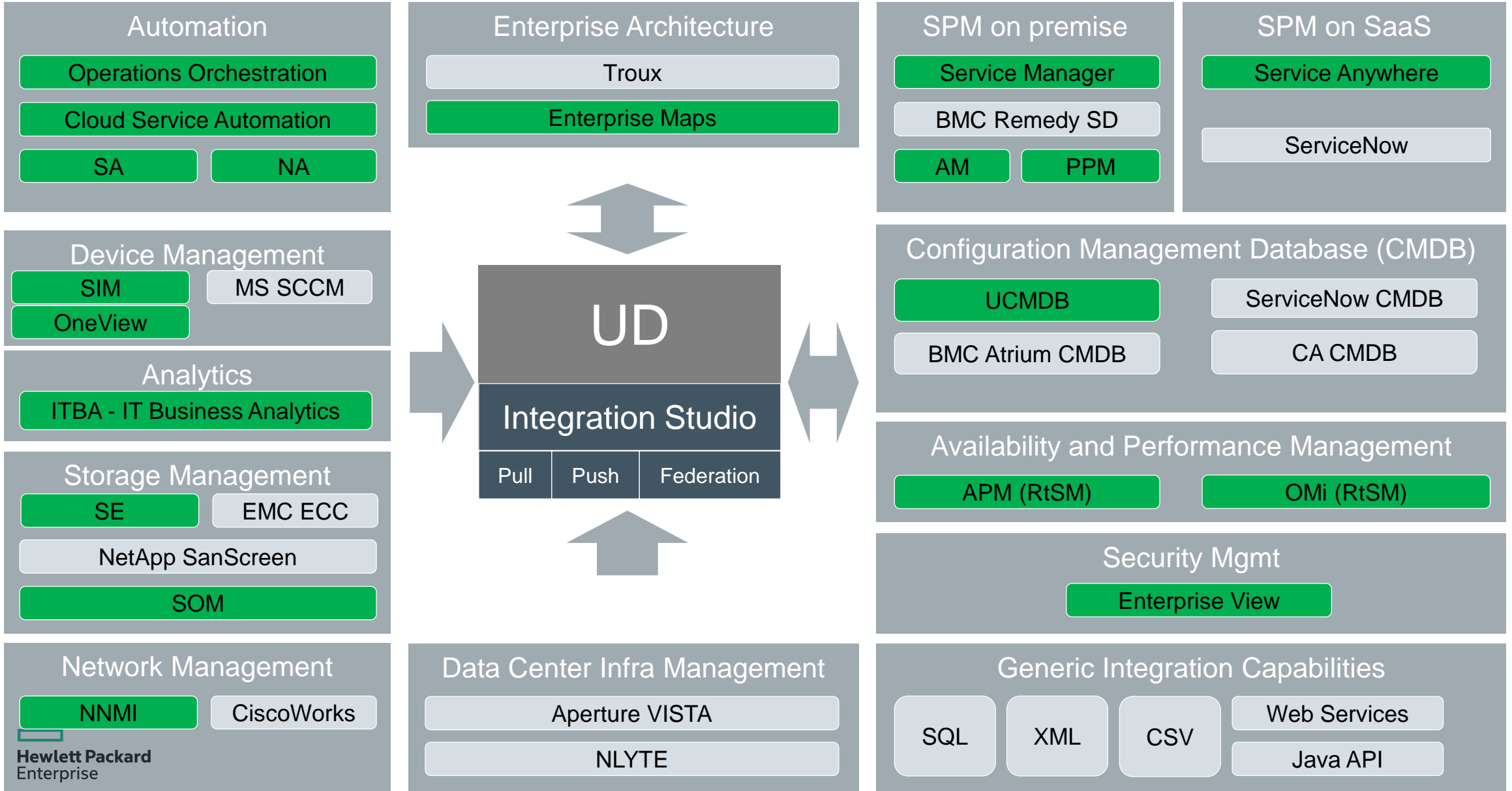
Virtualization & Containers



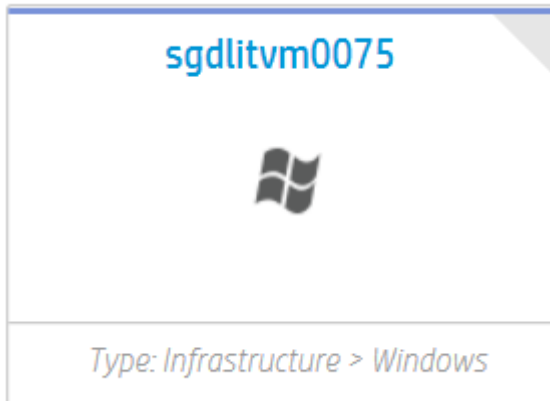
Physical, virtual and container resources

Out of the box integrations (partial list)

HPE Integrations



Universal Discovery Simple Demo – View Properties



Properties

VIEW MODE EDIT MODE

CORE

CPU Type:	Intel(R) Xeon(R) CPU L5640 @ 2.27GHz
Number of cores:	2
Total file system size:	70.00 GB
DiscoveredOsName:	Windows 2008
DiscoveredOsVersion:	6.0.6002
DiscoveredVendor:	VMware, Inc.
DomainName:	WORKGROUP
Global Id:	2b0b56b645a37e27b0d96a8e866fd46a
Node Operating System Installation type:	Server Enterprise
MemorySize:	4096
SerialNumber:	VMWARE-42 13 12 82 E5 06 B7 11-EA 2A B9 E9 98 BD 8F 6C

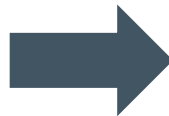
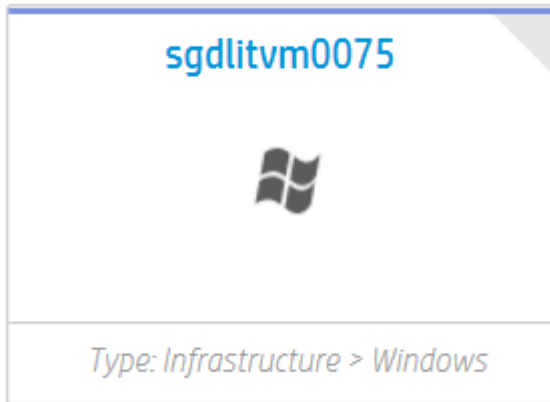
COMPLEMENTARY

Updated By:	UCMDBDiscovery: Inventory Discovery by Scanner
Node Is Virtual:	true
Node Boot Time:	Saturday, June 18, 2016 9:34:54 PM UTC-7
LastModifiedTime:	Tuesday, July 19, 2016 5:47:28 PM UTC-7

ADDITIONAL PROPERTIES

IP Address:	16.187.188.85, 2002:10bb:bc55::10bb:bc55, fe80::495d:5f:fb63:17c6
BiosDate:	Friday, June 22, 2012 12:00:00 AM UTC-7
BiosUuid:	42131282-E506-B711-EA2A-B9E998BD8F6C

Universal Discovery Simple Demo – View Environment



Environment


TEXTUAL GRAPHICAL

Infrastructure (200)

- Windows
 - sgdlitvm0075
 - Interface 6
 - FileSystemExport 4
 - InstalledSoftware 102
 - Process 10
 - MemoryUnit 64
 - Cpu 1
 - HardwareBoard 5
 - DiskDevice 3
 - Windows User 1
 - Printer Driver 1
 - GraphicsAdapter 1
 - FileSystem 1
 - LogicalVolume 1

Database (10)

Oracle (8)

- CLREXTPROC (Type: Oracle)
- DUKEBANK (Type: Oracle)
- PPM (Type: Oracle)
- SAMPLEDB (Type: Oracle)
- STOCKTRADER (Type: Oracle) 
- XMETA (Type: Oracle)
- XMETA2 (Type: Oracle)

Network (6)

- IpServiceEndpoint 2
- IpSubnet 1
- IpAddress 3

Database (10)

- SQL Server 1
- Oracle 8
- Oracle TNS Listener 1

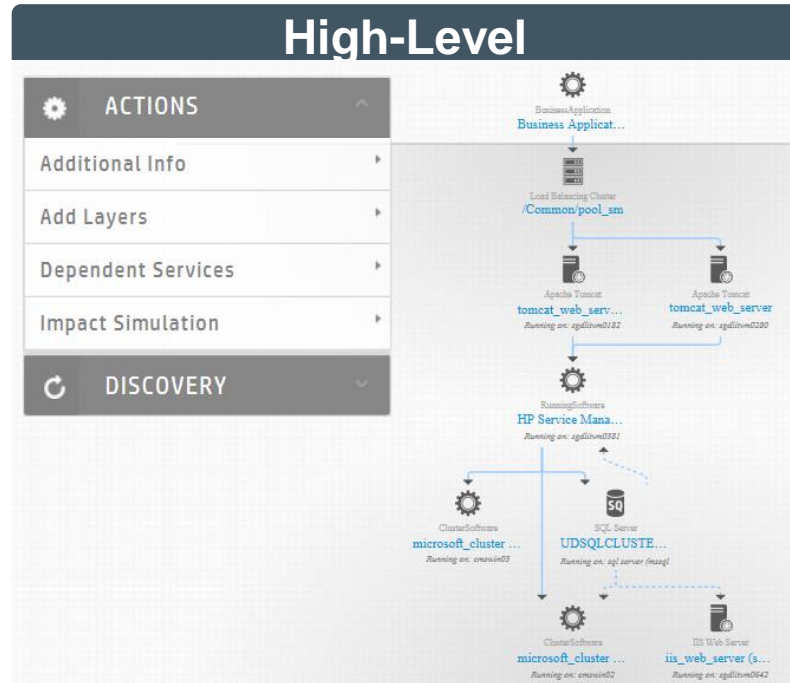
Other (2)

- InventoryScanner 1
- NTCMD 1

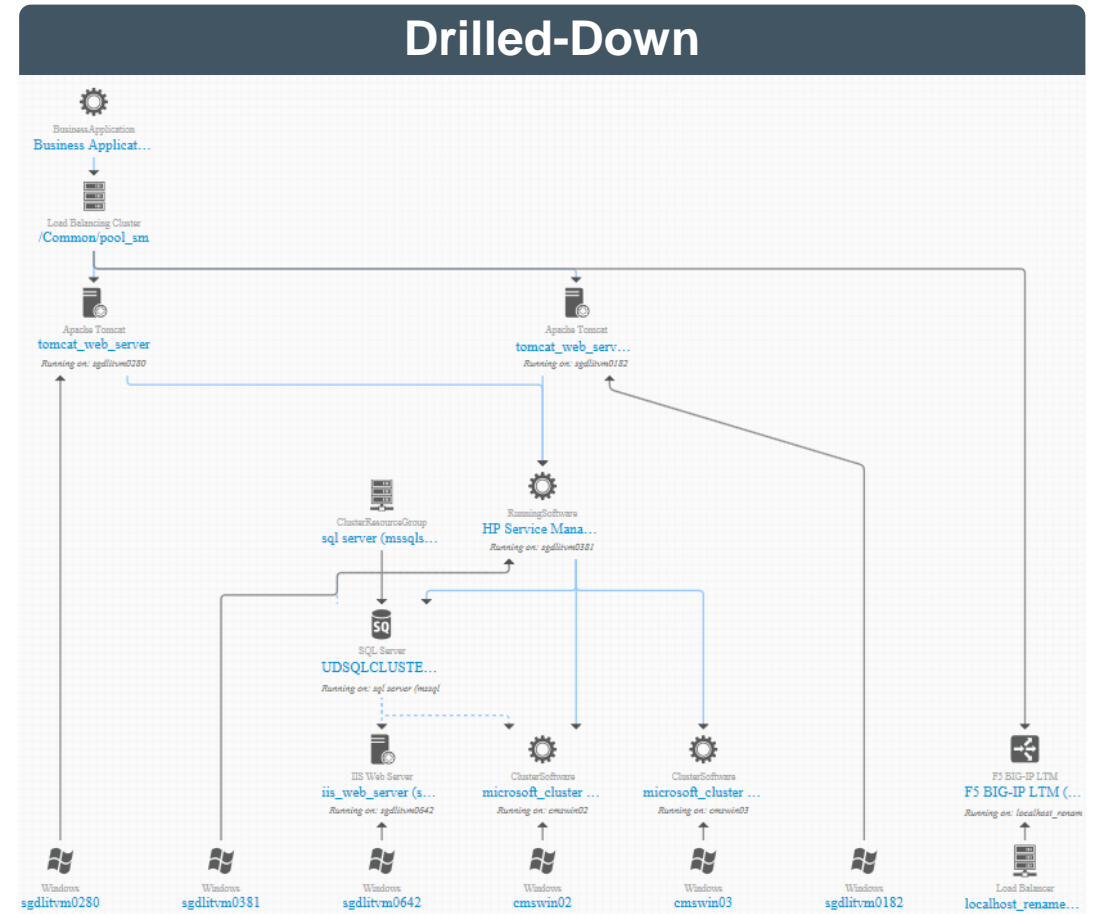
Universal Discovery Simple Demo – View Database

The screenshot displays the Universal Discovery interface. The top-left pane shows a search for 'STOCKTRADER' (Type: Oracle) selected. The top-right pane shows the 'Environment' view set to 'GRAPHICAL'. The main area contains a dependency diagram where a 'Database' node (containing 'Oracle' and 'STOCKTRADER') is connected to 'Network (1)' (containing 'IpServiceEndpoint 1') and 'Infrastructure (2)' (containing 'Process 1' and 'Windows 1'). A right-hand pane provides details for the selected 'IpServiceEndpoint (1)', showing the IP address '16.187.188.85:1521' and its type.

Universal Discovery Simple Demo – Service Modeling



-or-



Can add detailed content to the map that includes virtualization, storage, networking, nodes, clusters, and load balancers

Discovery Tools: Questions to ask yourself

Can you discover inventory and service dependency using a single tool?

Do you have architectural flexibility (agent-less/agent-base/hybrid)?

Can your discovery extend to public/private cloud/container platforms?



Are you able to scale to multiple data centers, and global deployments?

Can you set different rules for different network zones?

Can you discover the network and storage layers?

Summary

- Discovery tools are growing in importance due to trends in datacenter and cloud
- Integrated Discovery tools can and should be used for much more than simply mapping a CMDB
- It is critical to choose a Discovery tool capable of meeting the needs of an ever changing IT environment

To get a demo of HPE Universal Discovery, please visit [this link](#).

Thank you

- Complete the short survey and opt-in for more information from Hewlett Packard Enterprise.

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