HPOpenView and 5nines:5m inutes

HighestAvailability for the InternetAge

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W hatis 5nines:5m inues?

Cisco, Oracle, and BEA join HP forming the 5nines 5m inutes alliance

- •99.999% percentuptine guarantee in certain predefined, pre-tested custom erenvironm ents
- •Less than 5 m inutes of down time peryearof operation
- •Uptine defined in terms of the the end user (thus delivering true end-toend availability)
- •HPOpenView is a key componentofthis architecture



HP OPENVIEW

How is HP OpenView Involved?

Application Quality of Service (AQoS) is a key HP OpenView message for 5nines 5m inutes •VantagePoint is Heavily Leveraged

> •Service Level Managem entand Application Quality of Service

•Performance Management

•EventM anagem ent

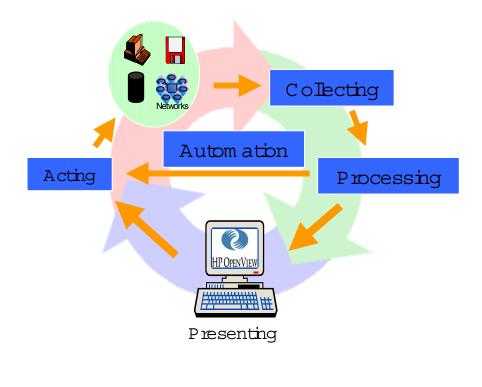
•Pre-program m ed Application Intelligence

•Tightnelationship between HP System s and Software W hat "Tried-and-True" H P O penView Building B bcks are Involved Today?

VantagePointOperations (VPO) previously known as IT /Operations

- •VantagePointOperations
- VantagePointReporter
- •VantagePointPerformance Agent
- •VantagePointPerformance Monitor
- •VantagePointSPIs
- •VantagePointService Navigator
- ●OmnƁackⅡ

HP OpenView Process for Im provem ent



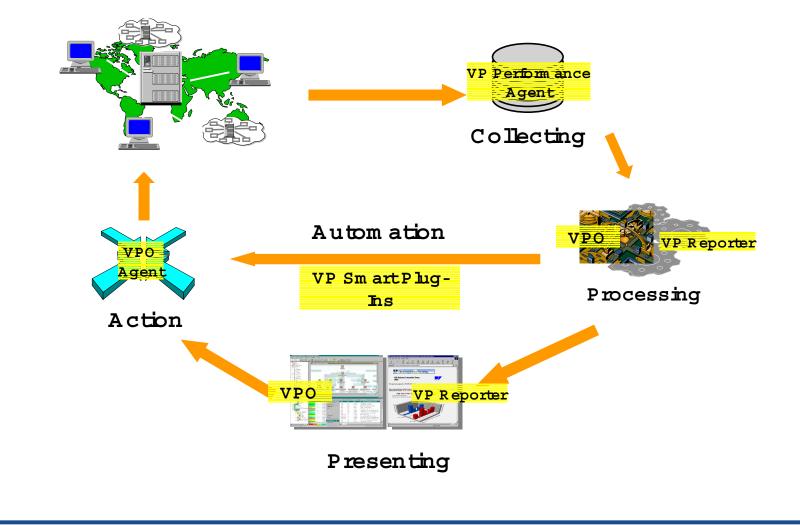
- Collecting -VP Perform ance and VP Operations Agents collect inform ation
- Processing -Data (events perform ance) is managed and processed by VP Operations and VP Reporter
- Presenting -VP Perform ance Monitor, VP Reporter, and VP Operations offer different views of the same core data
- Autom ation / Acting VP SP Is support initiation of these sorts of actions

How Does This Relate to 5nines:5m inutes?

The AQ oS focus of HP OpenView is a key contribution to the 5nines 5m inutes offering

- VantagePointO perations
 Provides application
 intelligence, autom ation
 resulting in increased
 availability, and a central
 operations bridge
- •VantagePoint Perform ance provides m anagem ent inform ation as wellas web-delivered reporting
- •OmniBack II provides the on-line backups needed to offer 99.999% data availability

5nines:5m inutes and the HP OpenView VantagePointProcess for Im provem ent



W hat's New from HP OpenView VantagePoint?

ManyHPOpenView components were built with the dem ands of 5nines5m inutes in mind

- VantagePointOperations
 6.0 (previously known as IT /Operations)
- •VantagePointSPIforthe SureStore E Disk Array 256
- •VantagePointSPIforBEA Tuxedo -Application Intelligence developed jointly with BEA
- •VantagePointInternet Services

VantagePoint Operations 6.0

VantagePointO perations is a key component of the 5nines 5m inues archiecture



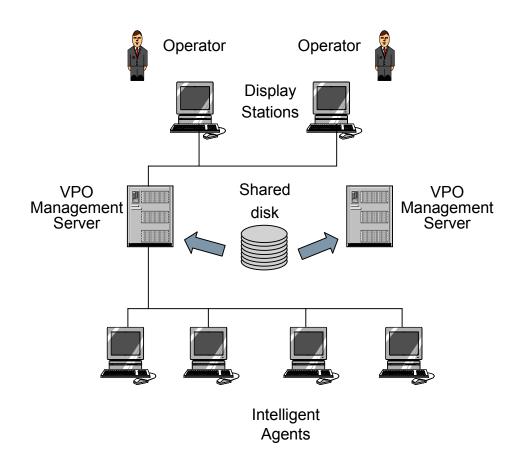
- Presents an Operations Bridge to keep services up and running
- Provides a foundation for the developm entof application intelligence
- Tried and true technology

VantagePoint Operations 6.0

VantagePointO perations is a key component of the 5nines 5m inues archiecture

- Certified and tested as M C /ServiceG uard ready
- Event come ation for all m anaged com ponents of 5nines:5m inutes
- •Guaranteed m essage delivery
- R obustagentarchitecture continues to m anage system s even when connection to m anagem entserver is bst

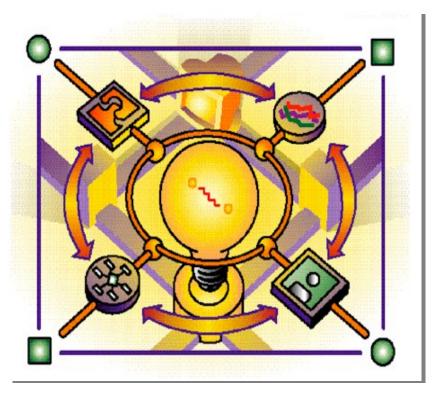
MC/ServiceGuard Eliminates Single Points of Failure



- A m incred shared disk stores all the data needed by VantagePoint Operations (including Oracle database)
- Should a management serverfailthe cluster will reconfigure, transferring package control to the VPO adoptive node

VantagePointSmartPlug-Ins (SPIs)

- Fully Integrated with VantagePointOperations
- Pre-Program m ed 'BestPractice" Application Intelligence
- SmartPlug-Ins are Developed by both Hew lett-Packard AND HP OpenView Partners
- Examples: Oracle, Informix, Sybase, and InternetWeb Servers
- SPIs are developed with strategic vendors such as BEA and Oracle



What is the HP SureStore E Disk Amay XP256?

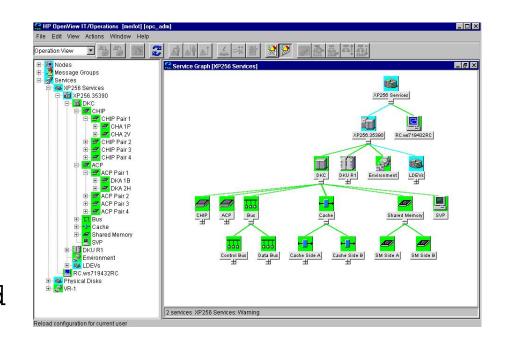


- Designed fornonstop operation and continuous access to alluser data (up to 9.0 TB)
- All subassem blies can be rem oved and maintained on-line (including microcode updates)
- M anagem entinform ation is available to both HP OpenView and the HP Response Center

VantagePointSureStore E DiskAmay XP256 SPI

•VPO SNMP Trap Tem plates intercept, filter, and form ats array SNM P data •Features monitoring of the RC components •VP Navigator presents a bgicalview ofarray components and m aps m essages to the

related components.

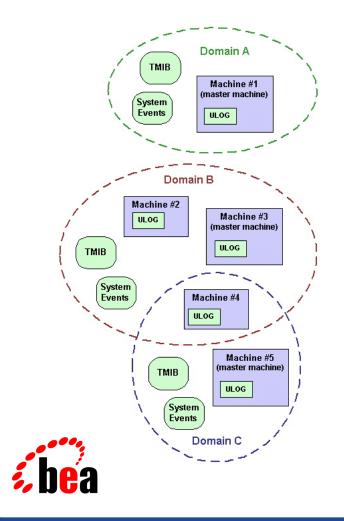




W hat is Tuxedo?

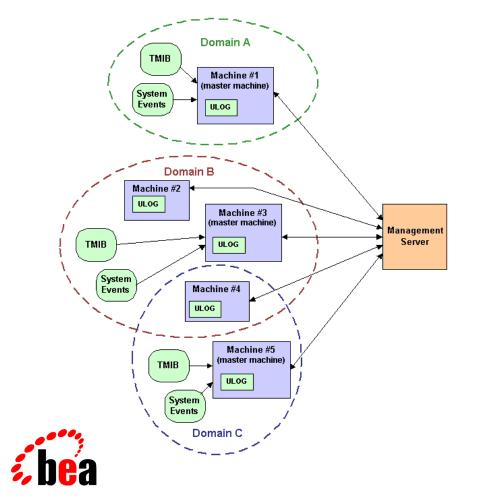
- •BEA Tuxedo provides the infrastructure to enable businesses to build mission-critical applications
- •A TUXEDO application or dom ain represents a physicalgroup of server m achines usually defined in one geographicalor m anaged boation
- •H ighly Scalable to large num bers of client system s
- •M anagem ent interface provided by BEA as part of Tuxedo

BEA Tuxedo Application Architecture



- Each Tuxedo dom ain contains one masterm achine
- Each Tuxedo serverm achine contains:
 - A num berofserverprocesses, which can generate Tuxedo system events
 - AULOG file
 - A Tuxedo M anagem ent Inform ation Base (TM IB) which contains data about the Tuxedo system

VantagePointBEA Tuxedo SPI Architecture



• VantagePointOperations m anages Tuxedo using the VantagePointOperations Agent

• Information is passed from the ULOG file and the Tuxedo Management Information Base (TM IB) to VantagePoint Operations

• Localautom atic actions are provided forwhich support both the m anagem entand configuration of the Tuxedo dom ains

More to com e ...

Many HP OpenView components were built with the dem ands of 5nines:5m inutes in mind

- •As 5nines:5m inutes grows, so will the HP OpenView product line
- Solutions targeted at "5nines" availability will yield solutions for custom ers who are more down time tolerant (such as 99.95%)
- •Ongoing work with HP OpenView as a part of 5nines:5m inutes willhelp HP OpenView advance it's Application Quality of Service (AQoS) message

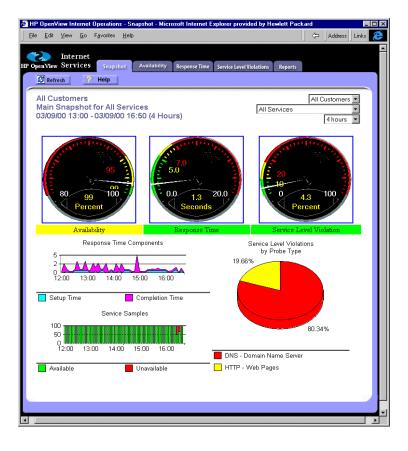
W hat is VantagePoint Internet Services v2.0?

A potential future com ponentof 5nines:5m inutes •Measure, monitor and report against service level agreements

•Provides end-to-end service assurance by proactively managing availability and performance

 Reduce Mean-time-to-Repair the service through tight linkage between internet services monitoring and trouble shooting Web-Based UserInterface is Feature-Rich butRemains Easy to Use

W orks with InternetExpbrerorNetscape Navigator



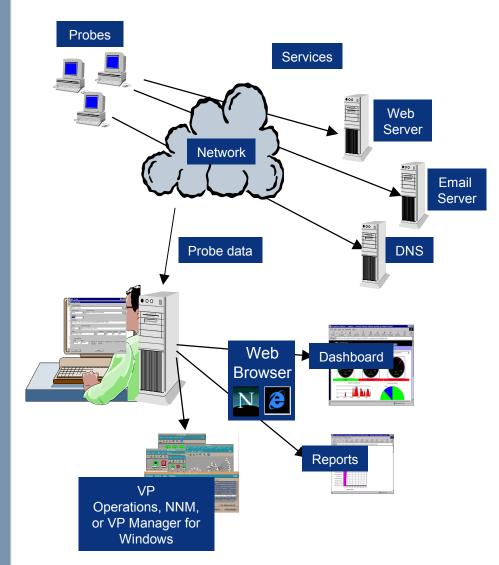
W eb Based, Intuitive UIHealth Sum m ary ata G lance

•DrillDown into Details

VP-IS: How IW orks

- 1. Install Software
- 2. Configure Targets, Service Objectives, and Probes
- 3. Deploy Probe Software
- 4. Probes collect and send data to VP-IS Server
- 5. VP-IS Dashboard is updated every 5 minutes
- 6. SLA, Availability, and Response Time Reports generated for Web
- 7. Operational Alarms can be sent to VP Operations or NNM

Probes can also reside on the m easurem ent server



Formore Information:

HP OpenView questions related to this presentation? Please em ailjim _pitts@ hp.com

- •HPOpenView www.openview.hp.com
- 5ninies:5m inutes including the SureStore E Disk Arraywww.openview.com/go/ha
- •BEA Tuxedo www.beasys.com



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