

Network Management

OpenView IT Operations Center

HP OpenView IT Operations Center is a distributed client/server software solution where the server acts as Manager and the clients as Intelligent Agents: It addresses the need for an operations/problem management solution for multi-vendor distributed computing environments.

The Intelligent Agents installed on the managed nodes throughout the management domain, gather status information, messages, and monitoring values, from a wide variety of sources. Filters and thresholds are used to ensure that only relevant information is forwarded to the Manager for consolidation at a central management system.

IT Operations Center provides multiple mechanisms, such as automatic actions or problem specific help text and instructions, for dealing with critical conditions. The Intelligent Agents can even initiate and execute corrective actions without any involvement from the Manager.

IT Operations Center automatically stores all collected status information, and records documenting completed actions, in a central repository, the history database. This information is an excellent source for auditing and analysis. The built-in annotation facility can be used to create record of the actions not automatically captured. IT Operations Center also provides an interface to external trouble ticket systems to enable use of other problem resolution tracking methods.

IT Operations Center offers comprehensive task delegation capabilities. Fully customizable working environments to match the skills, task, and responsibilities of each user can easily be created by the IT Operations Center administrator. This way, the full utilization of all committed IT resources is ensured. IT Operations Center Agents are available for the HP e3000 A- and N-Class or Series 900 Servers.

Product Categories

- Operations Management
- Problem Management
- System Management

OpenView Network Node Manager

The Network Node Manager maximizes staff productivity for network and system management and increases environment availability. The Network Node Manager provides unconstrained management of either a single Local Area Network or LANs interconnected by IP-addressable devices running the Simple Network Management Protocol (SNMP). The Network Node Manager automatically discovers and manages all network nodes, except non-SNMP nodes that it cannot fully manage. Additionally, the Node Manager contains an Application Builder that allows customization of the environment to include specific information about vendor devices without having to use complex programming. A Data Collector automatically collects the historical data on user-selected objects.

Network Node Manager Provides

- An unconstrained view of your network and systems
- An Application Builder to customize the environment
- Automatic data collection on user-selected objects

Network Node Manager Benefits

- Maximizes the productivity
- Easily monitor and control your entire environment
- Increases the availability of your entire environment

Workload Manager/iX

The new HP 3000 Workload Manager/iX improves HP e3000 system manager's ability to monitor and control CPU resources.

With the traditional MPE/iX scheduler, each process is assigned to execute in one of five scheduling queues (AS, BS, CS, DS, ES), and each queue is assigned a range of priorities. The MPE/iX dispatcher allocates CPU to processes according to their priorities.

With the Workload Manager/iX, processes are assigned to execute in a workgroup instead of a scheduling queue. For example, the following sample command defines a new workgroup called "Reporting":
:newwg Reporting: memb_program = Query.pub.sys; Base = 210; Limit = 240

Any process that runs the program Query.pub.sys will automatically be placed in this workgroup and scheduled according to its rules. The system manager defines workgroup membership criteria based on specific process attributes including the user logon, program name, or traditional scheduling queue.

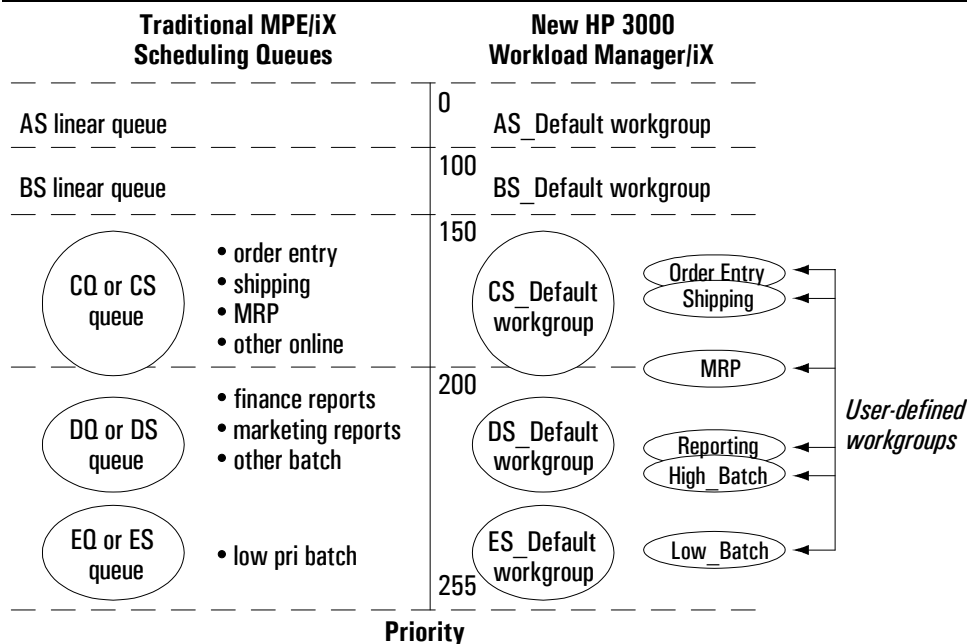
Each process is assigned to its appropriate workgroup at process creation, whenever a process attribute is changed, or after a process has been explicitly assigned to a workgroup by the system manager.

If no user-defined workgroups exist, all processes will fall into these five default workgroups, with the same scheduling attributes as today.

The Workload Manager/iX not only provides the full set of controls available with the traditional MPE/iX scheduling queues, such as base and limit priorities, quantum bounds, boost priority, and timeslice, but it also provides greater flexibility in terms of managing CPU consumption.

In addition, it enables system managers to allocate a minimum and maximum percentage of CPU time to each workgroup.

Figure 10.1



For example, processes in a workgroup with a minimum CPU percentage of 20 percent will be guaranteed 20 percent of the system's processing power, provided they have enough demand. If the CPU demand of all processes within the workgroup is less than the minimum CPU percentage, the "extra" CPU time is made available to processes in other workgroups, based on priority. If the processes within the workgroup need more than 20 percent, they can receive more, provided they do not violate the minimum values for other workgroups. Thus, the minimum is a true lower bound, and can be exceeded.

The maximum CPU percentage serves to restrict the CPU consumption of processes within a workgroup. If a workgroup is defined with a maximum CPU percentage of 50 percent, then all the processes combined in that workgroup will never be allowed to use more than 50 percent of the CPU resources. If no other workgroups require CPU, the system will idle rather than allow the workgroup to exceed its maximum. Thus, the maximum can be used as a throttle to limit CPU consumption. This can be used to eliminate or reduce the impact of one workgroup on other workgroups. A workgroup containing CPU-bound database queries might be given a CPU maximum of 25 percent. A workgroup containing batch jobs might be held to only 20 percent during production hours, to limit its impact on the response time of online users.

During a consolidation, users from each HP e3000 can be given a percentage of CPU resources to provide consistent service levels. For example, when consolidating from four systems, each HP e3000 user group can be allocated 25 percent CPU resources.

The Workload Manager/iX is an asset during or after a consolidation, to state- or government-funded businesses that need to guarantee a percentage of CPU-based on the amount of money each department contributed to the purchase of the system.



The Workload Manager/iX is fully integrated with GlancePlus.

The Workload Manager/iX adds four simple new commands:

- NEWWG creates workgroups
- ALTWG edits workgroups
- PURGEWG deletes workgroups
- SHOWWG shows workgroup information.

Each command requires SM or OP management authorization.

Product Information

Part Number	Description
B3879AA	HP Workload Manager

System Environment

MPE/iX 5.0 or later.