are based on the applications that are routed through that Web server. If the Web server plug-in configuration service is enabled, a Web server plug-in's configuration file is automatically regenerated whenever a new application is associated with that Web server.

Note: Before starting the Web server, make sure you are authorized to run any Application Response Measurement (ARM) agent associated with that Web server.

Refer to your Web server documentation for information on how to administer that Web server. For tips on tuning your Web server plug-in, see "Web server plug-in tuning tips" on page 137.

Introduction: Clusters

Clusters are groups of servers that are managed together and participate in workload management. A cluster can contain nodes or individual application servers. A node is usually a physical computer system with a distinct host IP address that is running one or more application servers. Clusters can be grouped under the configuration of a cell, which logically associates many servers and clusters with different configurations and applications with one another depending on the discretion of the administrator and what makes sense in their organizational environments.

Clusters are responsible for balancing workload among servers. Servers that are a part of a cluster are called cluster *members*. When you install an application on a cluster, the application is automatically installed on each cluster member.

Because each cluster member contains the same applications, you can distribute client tasks in distributed platforms according to the capacities of the different machines by assigning weights to each server.

In distributed platforms, assigning weights to the servers in a cluster improves performance and failover. Tasks are assigned to servers that have the capacity to perform the task operations. If one server is unavailable to perform the task, it is assigned to another cluster member. This reassignment capability has obvious advantages over running a single application server that can become overloaded if too many requests are made.

Node groups bound clusters. All cluster members of a given cluster must be members of the same node group. For more information about clusters and node groups, see "Clusters and node groups" on page 269.

To learn more about clusters, see "Clusters and workload management" on page 268 and "Balancing workloads with clusters" on page 268 for more information.

Core groups

A group of clusters can be defined as a *core group*. All of the application servers defined as a member of one of the clusters included in a core group are automatically members of that core group. Individual application servers that are not members of a cluster can also be defined as a member of a core group. The use of core groups enables WebSphere Application Server to provide high availability for applications that must always be available to end users. You can also configure core groups to communicate with each other using the *core group bridge*. The core groups can communicate within the same cell or across cells.

To learn more about core groups, see "Setting up a high availability environment" on page 298.

Introduction: Environment

The environment of the product applies to the configuring of Web server plug-ins, variables, and objects that you want consistent throughout a cell.