Framework Deployment Guide

Management Layer

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Management Layer

Contents

Functionality

The Management Layer provides:

- Centralized solution control and monitoring, displaying the real-time status of every configured Solution object, and activating and deactivating solutions and single applications, including user-defined solutions.

- Centralized logging that records applications maintenance events. The unified log format enables easy selection of required log records and centralized log storage for convenient access and solution-level troubleshooting. Centralized logging also allows you to track individual interactions, audit activities in your contact center, and store alarm history.

- Flexible alarm signaling that triggers alarms based on application maintenance events, system performance parameters, or Simple Network Management Protocol (SNMP) thresholds. Alarms are communicated to Genesys Administrator and can be written to system logs. You can configure the system to convert alarms into SNMP traps and send them as emails to a specified Internet address. (The latter automatically enables paging notifications.) The Management Layer automatically associates alarms with the solutions they affect and stores alarms as active conditions in the system until they are either removed by another maintenance event or cleared by the user.

- Fault-management functions, consisting of detection, isolation, and correction of application failures. For non-redundant configurations, the Management Layer automatically restarts applications that fail. For redundant configurations, this layer supports a switchover to the standby applications and also automatically restarts applications that fail.

- Individual host monitoring, including CPU and memory usage records and information about running processes and services.

- Support for geographically distributed environments.

- Support for the remote deployment of Genesys components, as performed in Genesys Administrator Extension.

- SNMP support for both alarm processing and SNMP data exchange with an SNMP-compliant network management system (NMS). As a result, you can integrate a third-party NMS with a Genesys system to serve as an end-user interface for control and monitoring functions and for alarm signaling functions.

Architecture
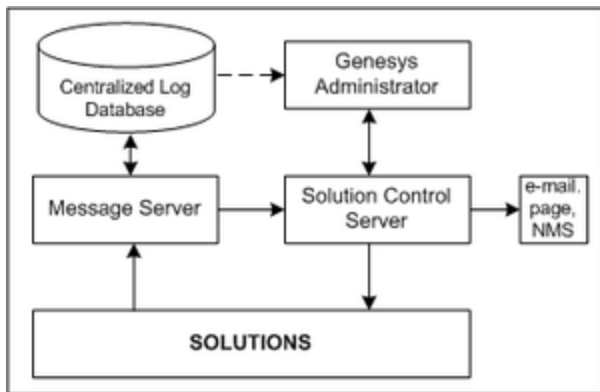
Management Layer Architecture

In the Management Layer:

- Local Control Agent (not shown in the diagram), located on every host that the Management Layer controls and/or monitors, is used to start and stop applications, detect application failures, and communicate application roles in redundancy context.

- Message Server provides centralized processing and storage of every application's maintenance events. Events are stored as log records in the Centralized Log Database where they are available for further centralized processing. Message Server also checks for log events configured to trigger alarms. If it detects a match, it sends the alarm to Solution Control Server for immediate processing.

- Solution Control Server is the processing center of the Management Layer. It uses Local Control Agents to start solution components in the proper order, monitor their status, and provide a restart or switchover in case of application failure. Solution Control Server also includes four utilities that provide the ability to gracefully stop T-Servers, handle T-Server stuck calls, send log messages on behalf of applications, and exchange information with Solution Control Server. These utilities can be installed with or without Solution Control Server.

- Genesys Administrator, a User Interaction Layer component, displays the status of all installed Genesys solutions and information about each active alarm, enables the user to start and stop solutions or single applications (including third-party applications), and enables advanced selection and viewing of maintenance logs.

- The Centralized Log Database (also called the Log Database) stores all application log records, including interaction-related records, alarm history records, and audit records.

- SNMP Master Agent (an optional component not shown in the diagram) provides an interface between the Management Layer and an SNMP-compliant NMS. It is required to support any SNMP-enabled Network Monitoring System, and to support Microsoft Operational Manager (MOM) technology.

  You can use Genesys SNMP Master Agent or any third-party SNMP Master Agent that is capable of using the AgentX protocol. You must configure Solution Control Server to connect to the SNMP Master Agent via the AgentX protocol. Genesys recommends that you use the open source Net-SNMP Master Agent. Starting with release 8.5.1, the Management Layer is capable of controlling and monitoring a Net-SNMP Master Agent in a similar manner as does Genesys SNMP Master Agent. Refer to SNMP Prerequisites and SNMP Master Agent for detailed information and limitations.