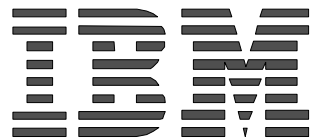


DCE Management for the Tivoli Environment



DCE Management Integration with TME

- ▶ TME 10 Plus certified at the Premier level
- ▶ Full integration of DCE User, Group, Organization and Cell Policy with TME User Administration
- ▶ Tivoli tasks available for configuring and administering DCE event support
- ▶ Monitoring of critical DCE resources:
 - system resources, file spaces, server processes
- ▶ Notification of DCE/DFS events:
 - DCE/DFS server status (server failures, server state changes, ...)
- ▶ Automated installation and configuration of DCE Clients

Tivoli Services Used by DCE Management

- ▶ TME 10 Framework
- ▶ TME 10 User Administration
- ▶ TME 10 Software Distribution
- ▶ TME 10 Distributed Monitoring
- ▶ TME 10 Enterprise Console

DCE Management Features

▶ User Administration

- Integrated DCE User management with Tivoli User Administration

▶ DCE Plus

- Other configuration and administration tasks
- DCE Server "Availability Management"

DCE Management - User Administration

- ▶ Allows administrators to administer DCE users along with other enterprise user accounts from the same user interface
- ▶ Adds DCE specific attributes to the Tivoli User profile
- ▶ Adds New Profile Types to support
 - DCE Groups
 - DCE Organizations
 - DCE Cell Policy

DCE Management - Plus Module

- ▶ Configuration and Administration Tasks
- ▶ DCE Client Setup
- ▶ DCE/DFS Monitors
- ▶ Events
- ▶ Rules and Automated Actions

DCE Plus - Administration and Configuration

- ▶ Provide tasks that can be executed from the Tivoli desktop to manage the DCE Plus "Event" support
 - Perform configuration of the DCE Event Adapter on DCE Server machines
 - Remotely control the Event adapter with Enable and Disable tasks
 - Setup the Tivoli Event Console (TEC) for the DCE Plus module (includes adding DCE Events, Rules, and Event Groups)
- ▶ Additional administration tasks provided to:
 - Start and Stop DCE Servers
 - Reset a Users DCE Password

DCE Plus - Client Setup

- ▶ Provide tasks to allow the Tivoli administrator to setup DCE client machines remotely
 - Define DCE client file packages
 - Distribute DCE Client
 - Configure a DCE Client into a cell
- ▶ Client can be a
 - Managed node
 - PC Managed node

DCE Plus - Monitors

- ▶ Provide a set of Tivoli Monitors to "watch" DCE and DFS resources and attributes.
 - DCE Monitor Collection
 - DFS Monitor Collection
- ▶ Define the initial set of resources to watch on server machines
 - DCE NT Monitors Profile
 - DCE UNIX Monitors Profile
 - DFS Monitors Profile

Monitor Collections - DCE Monitors

- ▶ Audit Server State
- ▶ Audit Trail Size
- ▶ CDS Attributes
- ▶ CDS Clerk Counters
- ▶ Checkpoint Space
- ▶ Clearinghouse Counters
- ▶ DCE Disk Space
- ▶ DCE Servers Up
- ▶ DTS Counters
- ▶ DTS State
- ▶ SVC Log Size
- ▶ Server Listening
- ▶ Server Statistics
- ▶ Server Response Time
- ▶ Registry State

Monitor Collections - DFS Monitors

- ▶ Quota Used
- ▶ Quota Percentage
- ▶ Process Running
- ▶ Process Core File
- ▶ Process Status
- ▶ Authorization Checking
- ▶ Cache Used
- ▶ Locked entries in FLDB
- ▶ File Set Status
- ▶ Not Available Server
- ▶ File Server Status
- ▶ Current Principals
- ▶ Total Stores
- ▶ Total Fetches
- ▶ Total Clients
- ▶ Total Calls
- ▶ Total Fetched Bytes
- ▶ Total Stored Bytes
- ▶ Total Lookups

DCE Plus - Distributed Monitor Profiles

- ▶ These monitors are in both the UNIX and NT Profiles:
 - DCE Disk Space Used
 - Are the DCE servers running out of disk space
 - DCE Servers Up
 - Are all the DCE Servers on a machine running
 - DCE Log Size
 - ♦ How big are the DCE log files getting?
 - Swap Space Available
 - How much memory is being used on a system.

DCE Plus - Events

- ▶ Integrates DCE events into the Tivoli Event Console by providing an "Event Adapter" to watch for DCE Events
 - Scans DCE event logs
 - Converts DCE Events to TEC Events and sends to TEC Server
- ▶ Several "classes" of DCE Events are supported:
 - DCE Serviceability Events
 - DCE Server Error or Notice type messages
 - Audit Events
 - DCE Server audit records to track access to DCE Services
 - DCE Monitor Events
 - Rule based Events
 - Generated from Monitor events

DCE Plus - Rules and Automated Actions

- ▶ Provide a set of DCE Rules to correlate DCE Events in order to
 - Reduce the number of DCE events
 - Attempt DCE Server recovery
 - Raise priority of critical events
 - Alert administrator of possible security violations
- ▶ DCE Automated Actions
 - Provide tasks that can be used to recover when problems are detected

DCE Plus - Rules

▶ Reduce DCE Events

- Eliminate Duplicate Events
- Group DCE SVC events into categories (potential security violation, insufficient memory)
- Close DCE SVC events after server restart
- Close monitor events when problem corrected

▶ DCE Server recovery

- Restart DCE Server when down
- Attempt to clean up large files when DCE directory disk space low (log files, core files, credential files)

DCE Plus - Rules

- ▶ **Raise priority of critical events**
 - When duplication count gets incremented by an interval (i.e. every 10 occurrences)
 - When causes of disk space low detected which no automatic action can be taken
- ▶ **Alert administrator of possible security violations**
 - Count Denials In a Time Period
 - Count Denials From the Same Client