SSO and DCS

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IBM

About lector

- Dr. Ing. Petr Habarta, Ph.D.

- 11 years spent on multiple universities

- Over 8 years in IBM

- Positions - started as 1st level technician, 2nd level production control, incident coordinator, shift leader, senior incident manager

- In IBM organization GTS division – service management

- Problem manager with focus on strategic data centers

- Lector of Service Management University

- Experience in IT and computers 30 years (13 years as professional, before it was only hobby)

Agenda

- SSO

- DCS

- 1st level support – Command Center

- 2nd level and 3rd level

- Ticket and ticketing tools

- Monitoring

- Tivoli infrastructure

IT infrastructure management

- SSO

- DCS

- NSD

SSO – System Server Operation

- Managing IT infrastructure

- Managing and maintenance of customer servers – remotely (server monitoring)

- Coverage of functions and availability of servers

- Backups and data restores

- Applications

DCS – Desktop Client Support

- 2nd level helpdesk

- Image services

- Managing of issues

- Coordination of installations, changes etc. (SCCM services)

- Disaster recovery – backups & restores

- Centralized support of end user stations

Structure of SSO

- 1st level support

  - Monitoring team

  - Basic and simple tasks

- 2nd level support

  - Managing more complex issues (installation, patching, changes etc.)

  - Application management

  - Divided based on theirs specialization – Windows, Unix, DB, Storage etc.

- 3rd level support

  - Masters of their specialization

  - "Top guns" used for most critical and complex issues

1st level support – Command Center

- Members - operators

- Monitoring 24/7 – OS, Applications, Backups, Profiles (ID's) etc.

- Solving basic/simple issues

- Assigning more complex issues to proper resolver for example:
    - NSD – network issues
    - OSS – on site support – physical check of server
    - CSC – transfer requests from CC to end-users/customer
    - UAR – management of profiles, IDs and passwords

2st + 3rd level support

- **2st level support**

- Members - Specialist

- Based on their specialization – Wintel, Unix, ERP, Databases, AHS, Storage, Security, Network etc.

- Working mainly 24/7

- Solving more complex issues (installations, patching, managing of OS etc.)

- **3rd level support**

- Members - Experts (SME)

- Last instance which solve the issue

- Most complex, critical and difficult issues

- Assist to architects with new projects and designs

Ticket tools

- Ticket is record (evidence & protocol) in ticketing tool – Basic communication tool

- Different tools – Maximo, Remedy, Manage now, AOTS, HPSM etc.

- 1 record = 1 ticket

- Advantages – every record is unique, simple escalation, recorded all activities and steps done

Ticket tools

File   Edit   View   Favorites   Tools   Help

Resolve | Close | Edit | Transfer | Assign | Add Note | Severity | Target Date | Team Info | Outages | Call Back | Refresh | Help | Close Window

General | Notes | Associated Changes | View Attachments

Problem Details

Problem Number: IBM-04348854   Problem Abstract: F_____-CPPEA13:*Attention* Contact your hardware service

Problem Information	Contact Information	Problem Date Information
Status: TRANSFERRED	Contact: FLQFAAA1FCCIS01	Occurred Date and Time: SEP 17,2006 04:00:16
Problem Type: PROBLEM	Organization: FLQFAAA1FAURECI	Open Date and Time: SEP 17,2006 04:00:08
Call Code: Outgoing Call	Last Name: CGC IS COMMAND CENTER	Original Target Date and Time: SEP 24,2006 04:00:16
Severity: 3	First Name: _____	Current Target Date and Time: SEP 24,2006 04:00:16
Original Severity: 3	Middle Name:	Resolved Date and Time:
System: FLQ_COMMON-APP	External Phone: 1	Close Date and Time:
Component: OPERATINGSYS	Alternate Contact:	Duration:
Item: OS/400	Department: CC	Call Back Date and Time:
Module: ERROR-MESG	Division: NA	Reminder Date and Time:
User:	Site: FLQFA-IBM COMMAND CENTER	
Group: FLQ-IFRISTI	Address: IBM COMMAND CENTER	Bridging Information
Owning User:	Floor:	Not Bridged
Owning Group:	Location: 000000000131954	Bridge Ticket Number:
Resolver User:	City: FRANCE	
Resolver Group:	State: FRANCE	
Reporter User: CZZJUC01 Last Name: _____A First Name _____	Zip: NA	
Reporter Group: FLQ-ICZOPIOCALM		
Cause Change Number:		
Cause Code:		
Node:	Additional Contact Information	Lock Status
Number Times Reassigned: 1	No Additional Contact Information	Locked By:
Duplicate Problem Number:		User:

Description

AA1 - _____ MsgID:CPPEA13:*Attention* Contact your hardware service provider.
Receive date . 2006/09/17 03:36:14

A critical system hardware problem has occurred. Critical Messag
e Handler has been run.
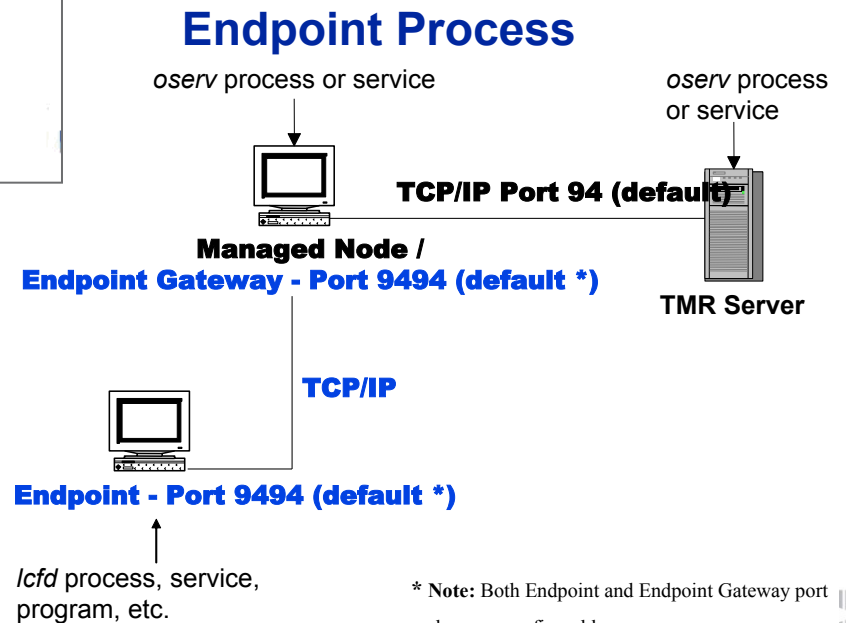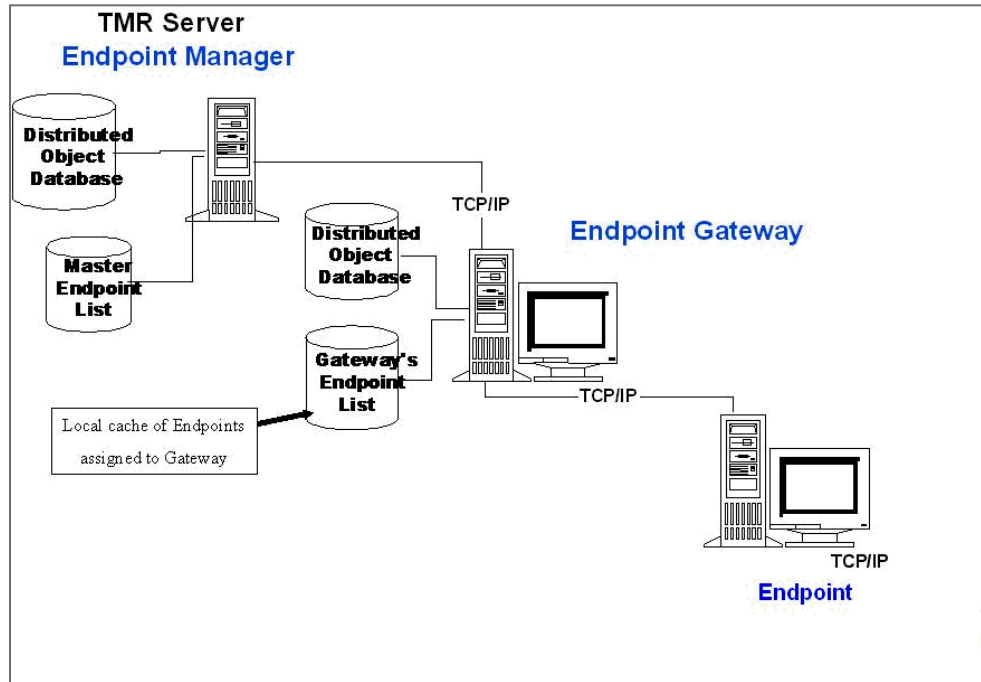Receive date . 2006/09/17 03:36:16

Done   Interne

Monitoring - Tivoli

- Tivoli is IBM product

- Set of tools with many features

- One of them is monitoring of OS, SW, HW, NSD etc.

Tivoli monitoring infrastructure

TMR Server
Endpoint Manager

Distributed Object Database

Master Endpoint List

Local cache of Endpoints assigned to Gateway

Distributed Object Database

Gateway's Endpoint List

TCP/IP

Endpoint Gateway

TCP/IP

TCP/IP

Endpoint

Endpoint Process

oserv process or service

oserv process or service

TCP/IP Port 94 (default)

Managed Node /
Endpoint Gateway - Port 9494 (default *)

TMR Server

TCP/IP

Endpoint - Port 9494 (default *)

lcfd process, service, program, etc.

* Note: Both Endpoint and Endpoint Gateway port values are configurable.

Tivoli Enterprise Console - TEC

Netcool monitoring tool

Tivoli features

- TEC – Tivoli Enterprise Console

- TSM – Tivoli Storage Manager

- TWS – Tivoli Workload Scheduler

- Tivoli Configuration Manager

- Tivoli License Manager

- Tivoli Acces Manager

Used shortcuts

- IBM = International Business Machines
- CIC = Client Innovation Center
- GSDC = Global Services Delivery Center
- SSO = Server System Operation
- DCS = Desktop Client Support
- HW = Hardware
- SW = Software
- OS = Operating System
- SLA = Service Level Agreement
- IT = Information Technologies
- SNMP = Simple Network Management Protocol
- TCP/IP = Transmission Control Protocol/ Internet Protocol
- OSS = On Site Support

- ERP = Enterprise Resource Planning
- PC = Personal Computer
- CC = Command Center
- HD = HelpDesk
- TEC = Tivoli Enterprise Console
- OSS = On Site Support
- RSA = Remote Supervisor Adapter
- LAN = Local area network
- WAN = Wide area network
- TMR = Tivoli Management Region
- lcfd = Lightweight Client Framework Daemon
- SME = Service Matter Expert

Questions ?

Links and materials

- http://www-03.ibm.com/ibm/history/documents/index.html

- http://www-03.ibm.com/systems/i/