

1. DSD - Section 5 .....	2
1.1 DSD 5/Architecture – System Administration Performance .....	4
1.1.1 DSD 5/Architecture – System Administration Performance/System Performance Management Topic Area .....	5
1.1.1.1 DSD 5/Architecture – System Administration Performance/System Performance Management Topic Area/Phases of Performance Planning .....	6
1.1.1.2 DSD 5/Architecture – System Administration Performance/System Performance Management Topic Area/Phases of Performance Monitoring .....	7
1.1.2 DSD 5/Architecture – System Administration Performance/Business Process .....	8
1.1.2.1 DSD 5/Architecture – System Administration Performance/Business Process/Business Process Functions .....	9
1.1.2.1.1 DSD 5/Architecture – System Administration Performance/Business Process/Business Process Functions /Boundaries of Both System and User Response Times .....	10
1.1.2.1.2 DSD 5/Architecture – System Administration Performance/Business Process/Business Process Functions /Baseline Performance Metrics .....	11
1.1.2.1.3 DSD 5/Architecture – System Administration Performance/Business Process/Business Process Functions/System Transactions .....	12
1.1.2.2 DSD 5/Architecture – System Administration Performance/Business Process/Screen Designs .....	13
1.1.2.3 DSD 5/Architecture – System Administration Performance/Business Process/Navigation Elements .....	14
1.1.2.4 DSD 5/Architecture – System Administration Performance/Business Process/Error Messages .....	15
1.1.2.5 DSD 5/Architecture – System Administration Performance/Business Process/Business Rules .....	16
1.1.2.6 DSD 5/Architecture – System Administration Performance/Business Process/Tasks_Notifications .....	17
1.1.2.7 DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces .....	18
1.1.2.7.1 DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Network Monitoring Files .....	19
1.1.2.7.2 DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Host Server Monitoring Files .....	21
1.1.2.7.3 DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Database Monitoring File .....	24
1.1.2.7.4 DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Web Server Monitoring Files .....	25
1.1.2.7.5 DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Batch Services Monitoring File .....	26
1.1.2.7.6 DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Golden PC Monitoring File .....	27
1.1.2.8 DSD 5/Architecture – System Administration Performance/Business Process/Applicable Security Roles .....	28
1.1.2.9 DSD 5/Architecture – System Administration Performance/Business Process/Reporting .....	29
1.1.2.10 DSD 5/Architecture – System Administration Performance/Business Process/Forms .....	30
1.1.2.11 DSD 5/Architecture – System Administration Performance/Business Process/External Interfaces .....	31
1.1.2.12 DSD 5/Architecture – System Administration Performance/Business Process/Batch Processing .....	32
1.1.3 DSD 5/Architecture – System Administration Performance/Code Table Definitions .....	33
1.1.4 DSD 5/Architecture – System Administration Performance/Database Entities .....	34
1.1.4.1 DSD 5/Architecture – System Administration Performance/Database Entities/Reporting Database Entities .....	35
1.1.4.2 DSD 5/Architecture – System Administration Performance/Database Entities/Reporting Database Key Relationships .....	36
1.1.5 DSD 5/Architecture – System Administration Performance/Business Class Definitions .....	37

# DSD - Section 5



# CMIPS

## D-4.2-03 – IHSS CMIPS Detailed System Design (DSD) (R2025.03.01) Section 5

Version 1.0

03/28/2025

### Table of Contents

- DSD 5/Architecture – System Administration Performance
  - DSD 5/Architecture – System Administration Performance/System Performance Management Topic Area
    - DSD 5/Architecture – System Administration Performance/System Performance Management Topic Area/Phases of Performance Planning
    - DSD 5/Architecture – System Administration Performance/System Performance Management Topic Area/Phases of Performance Monitoring
  - DSD 5/Architecture – System Administration Performance/Business Process
    - DSD 5/Architecture – System Administration Performance/Business Process/Business Process Functions
      - DSD 5/Architecture – System Administration Performance/Business Process/Business Process Functions/Boundaries of Both System and User Response Times
      - DSD 5/Architecture – System Administration Performance/Business Process/Business Process Functions/Baseline Performance Metrics
      - DSD 5/Architecture – System Administration Performance/Business Process/Business Process Functions/System Transactions
    - DSD 5/Architecture – System Administration Performance/Business Process/Screen Designs
    - DSD 5/Architecture – System Administration Performance/Business Process/Navigation Elements
    - DSD 5/Architecture – System Administration Performance/Business Process/Error Messages

- DSD 5/Architecture – System Administration Performance/Business Process/Business Rules
- DSD 5/Architecture – System Administration Performance/Business Process/Tasks\_Notifications
- DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces
  - DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Network Monitoring Files
  - DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Host Server Monitoring Files
  - DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Database Monitoring File
  - DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Web Server Monitoring Files
  - DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Batch Services Monitoring File
  - DSD 5/Architecture – System Administration Performance/Business Process/Internal Interfaces/Interface Name – Golden PC Monitoring File
- DSD 5/Architecture – System Administration Performance/Business Process/Applicable Security Roles
- DSD 5/Architecture – System Administration Performance/Business Process/Reporting
- DSD 5/Architecture – System Administration Performance/Business Process/Forms
- DSD 5/Architecture – System Administration Performance/Business Process/External Interfaces
- DSD 5/Architecture – System Administration Performance/Business Process/Batch Processing
- DSD 5/Architecture – System Administration Performance/Code Table Definitions
- DSD 5/Architecture – System Administration Performance/Database Entities
  - DSD 5/Architecture – System Administration Performance/Database Entities/Reporting Database Entities
  - DSD 5/Architecture – System Administration Performance/Database Entities/Reporting Database Key Relationships
- DSD 5/Architecture – System Administration Performance/Business Class Definitions

# DSD 5/Architecture – System Administration Performance

The System Administration Performance Track covers the overall ability and performance management of the CMIPS architecture to meet the Service Level Agreements (SLAs) defined in the CMIPS Contract under Table 6-33: System Performance for current volumes and end-user behavior and predicts any anticipated future changes.

# **DSD 5/Architecture – System Administration Performance /System Performance Management Topic Area**

The topic areas of System Performance Management are:

- Performance Planning
- Performance Monitoring

# **DSD 5/Architecture – System Administration Performance /System Performance Management Topic Area/Phases of Performance Planning**

Design Phase – Modeling is used to generate a system model that validates the system architecture before making any hardware or software investments. The [Detailed System Design \(DSD\)](#) provides the basic input to the model and system transactions.

Development/Testing Phase – The system is developed, benchmarked and load tested. This testing is done with the assistance of a simulation tool to provide an accurate performance model of how the system is expected to perform.

Production Phase – The system is managed through the use of monitoring and load-balancing tools. Simulation is also used to provide a predictive model that allows a "what if" analysis to be performed. The analysis validates the system's ability to meet its current and future performance goals.

This analysis provides critical information about the characteristics of the system that monitoring and management alone cannot provide.

## **Components of Performance Planning**

Capacity planning/management, as defined in the Information Technology Infrastructure Library (ITIL) and the CGI Best Practices libraries, is described in the Capacity Management Plan section 5.1 (CMIPShare > Document Center > Deliverables > 6.6-01 Capacity Management Plan).

# DSD 5/Architecture – System Administration Performance /System Performance Management Topic Area/Phases of Performance Monitoring

Monitoring System Phase – During the monitoring phase, performance reports and alerts are used to measure and evaluate the performance of CMIPS . Alert scripts are written to notify the console operator; this triggers the root cause analysis and the problem resolution.

Problem Resolution Phase – The problem resolution process requires an analysis of the root cause of a degradation or outage in the system and/or network resulting in missed SLA(s). This process extends to all components of CMIPS covered by the SLA.

Release Management Phase – Release management requires the system to demonstrate the linkage to requirements whether original or change order-created or modified. Part of this demonstrated linkage evaluates the impact on system performance in Design, Development and Implementation (DDI), and Maintenance & Operations (M&O).

Forecasting Phase – Forecasting system performance encompasses the modeling of the system for changes in human and system behavior against the existing system. Refer to the Capacity Management plan for forecasting.

## Components of Performance Monitoring

The Performance Planning Phase components are used in performance monitoring along with six additional components. These components are:

Change Order Sizing – Change Order sizing identifies the potential constraints and requirements that might affect the architecture, including the infrastructure, systems and platforms. This information is used to determine the appropriate system resources to be provided when the application goes into production. These resources include requirements for CPU, memory, disk storage, and network bandwidth.

Human Behavior Forecasting – Analysis of periodic forecasting reports help identify changes in anticipated or previously observed behaviors of CMIPS end-users. Behavior changes result in performance changes on the CMIPS system that can be forecasted and included in the quarterly Capacity Management Plan.

Simulation Modeling – Simulation modeling continues to be run against the actual data of the system and end-user behavior.

Load/Stress Tests – Load benchmark performance tests are conducted on each quarterly release to verify that the plans and forecast are accurate. If a load benchmark performance test fails, then a full performance test, modeling and capacity management plan update is executed.

Communications – The Communications Plan, Operations Plan, Customer Service Plan, and the Release Management Plan (CMIPShare > Document Center > Deliverables) include detailed notification requirements. In addition to these notifications, CMIPS puts the release schedule on the portal along with the release notes as written by the Configuration Control Board (CCB).

Service Request/Problem Resolution – The CMIPS Service Desk initiates a service request when problems are reported from end-users, California Department of Technology (CDT), automated alarm, and systems administration staff. The Customer Service Plan (CMIPShare > Document Center > Deliverables > 5.5-01 Customer Service Plan) and Service Desk Procedures (CMIPShare > Document Center > Deliverables > 5.5-02 Service Desk Procedures) identify processes and procedures in handling service requests throughout the problem resolution process.

## Tools

The toolsets which are used for the planning and monitoring of the CMIPS system capacity and performance management are defined in section 5.2.7 of the Capacity Management Plan (CMIPShare > Document Center > Deliverables > 6.6-01 Capacity Management Plan).

# **DSD 5/Architecture – System Administration Performance /Business Process**

# **DSD 5/Architecture – System Administration Performance /Business Process/Business Process Functions**

# DSD 5/Architecture – System Administration Performance /Business Process/Business Process Functions /Boundaries of Both System and User Response Times

CI	Document Name
 CI-116665 - DSD BF Boundaries of Both System and User Response Times <span style="border: 1px solid black; padding: 2px;">IMPLEMENTED</span>	DSD_BF_Boundaries_of_Both_System_and_User_Response.doc

Please refer to the Capacity Management Plan (CMIPShare > Document Center > Deliverables > 6.6-01 Capacity Management Plan) for information regarding boundaries of both system and user response times.

# DSD 5/Architecture – System Administration Performance /Business Process/Business Process Functions/Baseline Performance Metrics

CI	Document Name
 CI-106019 - DSD BF Baseline Performance Metrics <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	DSD_BF_Baseline_Performance_Metrics.doc

Baseline performance metrics are documented in the Capacity Management Plan (CMIPShare > Document Center > Deliverables > 6.6-01 Capacity Management Plan) and section 6.12: System Performance of the CMIPS Contract (CMIPShare > Document Center > Contracts > Contract).

# DSD 5/Architecture – System Administration Performance /Business Process/Business Process Functions/System Transactions

CI	Document Name
<a href="#"> CI-106018 - DSD BF System Transactions</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	DSD_BF_System_Transactions.doc

Please refer to the Capacity Management Plan (CMIPShare > Document Center > Deliverables > 6.6-01 Capacity Management Plan) for information regarding System Transactions.

## **DSD 5/Architecture – System Administration Performance /Business Process/Screen Designs**

System Administration Performance does not have screens within CMIPS as the performance monitoring is external to the CMIPS application.

## **DSD 5/Architecture – System Administration Performance /Business Process/Navigation Elements**

System Administration Performance does not have navigation elements within CMIPS as the performance monitoring is external to the CMIPS application.

## **DSD 5/Architecture – System Administration Performance /Business Process/Error Messages**

System Administration Performance does not have error messages within CMIPS as the performance monitoring is external to the CMIPS application.

## **DSD 5/Architecture – System Administration Performance /Business Process/Business Rules**

System Administration Performance does not have business rules within CMIPS as the performance monitoring is external to the CMIPS application.

## **DSD 5/Architecture – System Administration Performance /Business Process/Tasks\_Notifications**

System Administration Performance does not have tasks/notifications within CMIPS as the performance monitoring is external to the CMIPS application.

# **DSD 5/Architecture – System Administration Performance /Business Process/Internal Interfaces**

There are six internal interfaces associated with System Performance Management. These interfaces are generated from shell scripts, located on CDT servers, which are scheduled to run on the physical servers and then generated data is transferred to BusinessObjects Reporting DB2 Data Warehouse. The following Internal Interfaces are associated with System Performance Management:

- Network Monitoring Files
- Host Server Monitoring Files
- Database Monitoring File
- Web Server Monitoring Files
- Batch Services Monitoring File
- Golden PC Monitoring File

# DSD 5/Architecture – System Administration Performance /Business Process/Internal Interfaces/Interface Name – Network Monitoring Files

CI	Document Name
CI-106031 - DSD INTF Network Monitoring Files <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	DSD_INTF_Network_Monitoring_Files.doc

The Network Monitoring File is used to communicate network availability and utilization data elements to the performance management database. BusinessObjects Crystal Reports XI produces network availability and utilization reports from this information.

## Characteristic of Interface

- Type – Internal batch
- Format – Comma Separated Values (CSV) (refer to the following table)
- Frequency – Daily
- Source(s) (System) – CDT provides CSV data file dump on server
- Target(s) (System) – CMIPS Reporting Database
- Media – Electronic file
- Interface Method – File transmission via file transfer protocol (FTP) over Secured Shell (SSH)

## Data Elements of Interface

Network circuit availability information:

Data Item Name	Format	Length	Comment
WAN Start Date and Time	Timestamp	10	Start of Measurement Interval
Interval	Numeric	4	Length of Measurement Interval
County	String	100	County Name
POP Circuit ID	String	100	POP Circuit ID map to County
Available Percentage	Numeric	24,7	Values usually 0 to 100
Source Record	String	100	Name of source router file

Network circuit utilization information (can be collected on a different interval):

Data Item Name	Format	Length	Comment
WAN Start Date and Time	Timestamp	10	Start of Measurement Interval
Interval	Numeric	4	Length of Measurement Interval
County	String	100	County Name
POP Circuit ID	String	100	POP Circuit ID map to County
Peak bps (bits/sec)	Numeric	24,7	Peak traffic flow in Interval
Avg bps (bits/sec)	Numeric	24,7	Average traffic flow over Interval
Peak Utilization Pcnt	Numeric	24,7	Accuracy depends on tool suite
Avg Utilization Pcnt	Numeric	24,7	Accuracy depends on tool suite
Source Record	String	100	Name of source router file
Packets IN	Numeric	24,7	Total Packets IN
Packets OUT	Numeric	24,7	Total Packets OUT
Packets Errors	Numeric	24,7	Total Packets Errored Out

## Reports Supported

The following Performance Management reports are associated with this interface and are defined within the Operations Plan:

- Network Availability report
- Network Utilization report
- WAS Transmission Workload by County and POP report



# DSD 5/Architecture – System Administration Performance /Business Process/Internal Interfaces/Interface Name – Host Server Monitoring Files

CI	Document Name
CI-106030 - DSD INTF Host Server Monitoring Files <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	DSD_INTF_Host_Server_Monitoring_Files.doc

The Host Server Monitoring file is used to communicate host server availability and utilization data elements to the performance management database. BusinessObjects Crystal Reports XI produces host server availability and utilization reports from this information.

## Characteristic of Interface

- Type – Internal batch
- Format – CSV, See following table
- Frequency – Daily (every five minutes)
- Source(s) (System) – AIX shell scripts generating server monitoring data
- Target(s) (System) – CMIPS Reporting Database
- Media – Electronic file
- Interface Method – File transmission via FTP over SSH

## Data Elements of Interface

Host server availability information:

Data Item Name	Format	Length	Comment
Host Start Date and Time	Timestamp	10	Start of Measurement Interval
Server Name	String	50	Host Server Name
Interval	Numeric	4	Length of Measurement Interval
Available Percentage	Numeric	7,2	Values usually between 0 and 100
Source Record	String	50	Name of source logs

Host server utilization information (can be collected on a different interval)

Data Item Name	Format	Length	Comment
Server Name	String	50	Host Server Name
Host Start Date	Date	4	Start Date of Measurement Interval
Host Start Time	Time	3	Start Time of Measurement Interval
Interval	Integer	4	Length of Measurement Interval
User Proc Utilization	Numeric	14,7	Average User Mode Utilization over Interval
System Proc Utilization	Numeric	14,7	Average System Mode Utilization over Interval
Wait Proc Utilization	Numeric	14,7	Average Wait Mode Utilization over Interval
Idle Proc Utilization	Numeric	14,7	Average Idle Mode Utilization over Interval
Real Memory Size	Numeric	14,7	Available real memory in megabytes
Real Memory Free	Numeric	14,7	Free in Megabytes
Memory Utilization Computational	Numeric	14,7	Avg Computational utilization in percentage
Memory Utilization Non Computational	Numeric	14,7	Avg Non Computational Utilization in percentage
Memory Utilization Client	Numeric	14,7	Avg Client Utilization in percentage
Virtual Memory Size	Numeric	14,7	Virtual Memory Size in MB
Virtual Memory Free Size	Numeric	14,7	Avg virtual memory free size in percentage
Virtual Memory Used Size	Numeric	14,7	Avg virtual memory used size in percentage
Page IN	Numeric	14,7	Total No. of memory pages IN
PAGE OUT	Numeric	14,7	Total No. of memory pages OUT
I/O Disk Busy Total	Numeric	14,7	Avg total disks busy in percent

Total disks read	Numeric	24,7	Total # of reads in KB_SEC
Total disks write	Numeric	24,7	Total # of writes in KB_SEC
I/O Disk transfer	Numeric	24,7	Total avg disk transfers per second
ROOT space size	Numeric	7,2	Mount /: space in megabytes
ROOT space utilization	Numeric	7,2	Average of available space used
ROOT space free size	Numeric	7,2	Free size in megabytes
ROOT space used size	Numeric	7,2	Used size in megabytes
HOME space size	Numeric	7,2	Mount /home: space in megabytes
HOME space utilization	Numeric	7,2	Average of available space used
HOME space free size	Numeric	7,2	Free size in megabytes
HOME space used size	Numeric	7,2	Used size in megabytes
USR space size	Numeric	7,2	Mount /usr: space in megabytes
USR space utilization	Numeric	7,2	Average of available space used
USR space free size	Numeric	7,2	Free size in megabytes
USR space used size	Numeric	7,2	Used size in megabytes
VAR space size	Numeric	7,2	Mount /var: space in megabytes
VAR space utilization	Numeric	7,2	Average of available space used
VAR space free size	Numeric	7,2	Free size in megabytes
VAR space used size	Numeric	7,2	Used size in megabytes
TMP space size	Numeric	7,2	Mount /tmp: space in megabytes
TMP space utilization	Numeric	7,2	Average of available space used
TMP space free size	Numeric	7,2	Free size in megabytes
TMP space used size	Numeric	7,2	Used size in megabytes
OPT space size	Numeric	7,2	Mount /opt: space in megabytes
OPT space utilization	Numeric	7,2	Average of available space used
OPT space free size	Numeric	7,2	Free size in megabytes
OPT space used size	Numeric	7,2	Used size in megabytes

Host Disk utilization information (scheduled to generate statistics daily)

Data Item Name	Format	Length	Comment
Server Name	String	50	Host Server Name
Host Start Date	Date	4	Start Date of Measurement Interval
Host Start Time	Time	3	Start Time of Measurement Interval
Host Filesystem Mount	String	100	Filesystem Mount points
Allocated GB	Numeric	7,2	Total allocated disk space in GB
Free GB	Numeric	7,2	Free space in GB from total allocated
Used GB	Numeric	7,2	Used space in GB from total allocated
Disk Utilization AVG	Numeric	7,2	Average disk utilization from allocated
Goal 30 days GB	Numeric	7,2	Expected total GB used after 30 days
Goal 90 days GB	Numeric	7,2	Expected total GB used after 90 days
Goal 180 days GB	Numeric	7,2	Expected total GB used after 180 days
Goal ocs days	Numeric	7,2	Expected no. of outstanding days until allocated GB fully used

## Reports Supported

The following Performance Management reports are associated with this interface and are defined within the Operations Plan:

- Architecture – System Administration Performance (Server Availability Report)
- Architecture – System Administration Performance (Server I/O Workload Report)
- Architecture – System Administration Performance Server Disk Utilization)

- Architecture – System Administration Performance (Server Memory Utilization Report)

# DSD 5/Architecture – System Administration Performance /Business Process/Internal Interfaces/Interface Name – Database Monitoring File

CI	Document Name
 CI-106023 - DSD INTF Database Monitoring Files <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	DSD_INTF_Database_Monitoring_Files.doc

The Database Monitoring file is used to communicate database utilization data elements to the Performance Management database. BusinessObjects Crystal Reports XI produces database transaction volume reports from this information.

## Characteristic of Interface

- Type – Internal batch
- Format – CSV
- Frequency – Daily
- Source(s) (System) – AIX Shell script generating database monitoring data
- Target(s) (System) – CMIPS Reporting Database
- Media – Electronic file
- Interface Method – File transmission via FTP over SSH

## Data Elements of Interface

Database Utilization information:

Data Item Name	Format	Length	Comment
Start Date	Date	4	Date of Measurement Interval
Start Time	Time	3	Start Time of Measurement Interval
Server Name	String	50	Host Server Name
Interval	Numeric	4	Length of Measurement Interval
DB Instance Name	String	20	Database Instance Name
DB Schema Name	String	20	Database Schema Name
Total SQL Calls	Numeric	4	Total SQL Calls over Interval
Read SQL Calls	Numeric	4	Read SQL Calls over Interval
Update SQL Calls	Numeric	4	Update SQL Calls over Interval
Insert SQL Calls	Numeric	4	Insert SQL Calls over Interval
SQL Calls Locked	Numeric	4	SQL Calls over Interval resulting in Locks
SQL Calls Waiting	Numeric	4	SQL Calls over Interval resulting in Waiting

## Reports Supported

The following Performance Management report is associated with this Interface and is defined within the Operations Plan:

- Architecture – System Administration Performance

# DSD 5/Architecture – System Administration Performance /Business Process/Internal Interfaces/Interface Name – Web Server Monitoring Files

CI	Document Name
 CI-106032 - DSD INTF Web Server Monitoring Files <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	DSD_INTF_Web_Server_Monitoring_Files.doc

The Web Server Monitoring file is used to communicate Web server utilization and performance data elements to the performance management database. BusinessObjects Crystal Reports XI produces Web server utilization and performance reports from this information.

## Characteristic of Interface

- Type – Internal batch
- Format – CSV
- Frequency – Hourly
- Source(s) (System) – AIX shell script generating http transaction monitoring data
- Target(s) (System) – CMIPS Reporting Database
- Media – Electronic file
- Interface Method – File transmission via FTP over SSH

## Data Elements of Interface

Web services utilization information:

Data Item Name	Format	Length	Comment
Web Start Date and Time	Timestamp	10	Start of Measurement Interval
Server Name	String	50	Host Server Name
Interval	Numeric	4	Length of Measurement Interval
Node Name	String	50	WebSphere Cluster Node Name
Web Transaction Calls	Numeric	4	Web transaction calls over Interval
Web Transaction Calls Errors	Numeric	4	Web transaction call errors over Interval
Web Transaction End IP	String	50	Web transaction call end IP over interval

CMIPS System Transaction information:

Data Item Name	Format	Length	Comment
System Transaction Name	Varchar	1000	System Transaction Name
Transaction Start Date and Time	Timestamp	10	Start of System Transaction
Transaction End Date and Time	Timestamp	10	End of System Transaction
Transaction Runtime	Numeric	24,7	System Transaction Runtime in milliseconds
Server Name	String	50	Host Server Name
Node Name	String	50	WebSphere Cluster Node Name

Note: Used to determine whether a specific user transaction involves a database call or not. Interface scripts are stored in BitBucket at:  
[http://cs-bit01.cmips2.com:7990/login?next=/projects/CMIP/repos/batch\\_scripts/browse/BPM](http://cs-bit01.cmips2.com:7990/login?next=/projects/CMIP/repos/batch_scripts/browse/BPM)

## Reports Supported

The following Performance Management reports are associated with this Interface and are defined within the Operations Plan:

- Web Services Transaction Volume report
- System Response Time report

# DSD 5/Architecture – System Administration Performance /Business Process/Internal Interfaces/Interface Name – Batch Services Monitoring File

CI	Document Name
 CI-106027 - DSD INTF Batch Services Monitoring Files <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	DSD_INTF_Batch_Services_Monitoring_Files.doc

The Batch Services Monitoring file is used to communicate batch services operational data elements to the performance management database. BusinessObjects Crystal Reports XI produces scheduled batch performance reports from this information. The scheduler notifies the batch operator in the event of any abnormal termination of a batch job.

## Characteristic of Interface

- Type – Internal batch
- Format – CSV
- Frequency – Daily
- Source(s) (System) – Batch scheduling tool suite (AutoSys)
- Target(s) (System) – CMIPS Reporting Database
- Media – Electronic file
- Interface Method – File transmission via FTP over SSH

## Data Elements of Interface

Batch job performance information:

Data Item Name	Format	Length	Comment
Server Name	String	50	Host Server Name
Job Start Date and Time	Timestamp	10	Start of Batch Job execution
Job End Date and Time	Timestamp	10	End of Batch Job execution
Job Runtime	Numeric	4	Job Runtime
Job Name/ID	String	100	Job Name or Identifier
Job Completion Code	String	20	Job completion code
Job Completion Pcnt	Numeric	7,2	Job completion percentage
Job On Time Count	Numeric	4	Job On Time Count
Job Late Count	Numeric	4	Job Late Count

## Reports Supported

The Performance Management reports associated with this interface are defined within the Operations Plan:

- CMIPS Availability Report
- Scheduled Batch Exception

# DSD 5/Architecture – System Administration Performance /Business Process/Internal Interfaces/Interface Name – Golden PC Monitoring File

CI	Document Name
 CI-106028 - DSD INTF Golden PC Monitoring Files <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	DSD_INTF_Golden_PC_Monitoring_Files.doc

The Golden PC Monitoring file is used to communicate user response time performance data elements to the performance management database. BusinessObjects Crystal Reports XI produces User Response Time performance reports from this information.

## Characteristic of Interface

- Type – Internal batch
- Format – CSV, See following table
- Frequency – Daily
- Source(s) (System) – Golden PC monitoring scripts
- Target(s) (System) – CMIPS Reporting Database
- Media – Electronic file
- Interface Method – File transmission via FTP over SSH

## Data Elements of Interface

CMIPS User Transaction information:

Data Item Name	Format	Length	Comment
PC Host Name	String	50	PC Host Name
User Transaction Name	String	1000	User Transaction Name
Transaction Start Date and Time	Timestamp	10	Start of User Transaction
Transaction End Date and Time	Timestamp	10	End of User Transaction
Transaction Runtime	Numeric	4	User Transaction Runtime

Note: Used to determine whether a specific user transaction involves a database call or not. Interface scripts are stored in BitBucket at:  
[http://cs-bit01.cmips2.com:7990/login?next=/projects/CMIP/repos/batch\\_scripts/browse/BPM](http://cs-bit01.cmips2.com:7990/login?next=/projects/CMIP/repos/batch_scripts/browse/BPM)

## Reports Supported

The following Performance Management report is associated with this interface and is defined within the Operations Plan:

- Golden PC User Response Time Report

## **DSD 5/Architecture – System Administration Performance /Business Process/Applicable Security Roles**

System Administration Performance does not have any direct security roles except those defined in the Operations Plan for system administration and problem resolution. Additionally, BusinessObjects has an additional security role for System Performance Monitoring. Roles are assigned to individuals as defined by the CMIPS Security Plan.

## **DSD 5/Architecture – System Administration Performance /Business Process/Reporting**

See Operations Plan for CMIPS System Performance Reports.

## **DSD 5/Architecture – System Administration Performance /Business Process/Forms**

System Administration Performance does not use forms in CMIPS.

## **DSD 5/Architecture – System Administration Performance /Business Process/External Interfaces**

System Administration Performance does not use external interfaces in CMIPS.

# DSD 5/Architecture – System Administration Performance /Business Process/Batch Processing

The following batch/crontab jobs are used to transfer system performance related data to the reports required by SOW and SyRS.  
See the DDD (Database Design Description) "Appendix F" for table/column descriptions and mapping to the ETLs (shell scripts).

Batch Process Name	CI	Description	Estimated Size (Records)	Frequency	Send Receive Maintenance
StatsGenerate.sh	<a href="#"> CI-116321 - DSD BTCH Stats Generate</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from each server to the Reporting Database	Log files for the interval	5 minutes	Maintenance
StatsInserts.sh	<a href="#"> CI-116320 - DSD BTCH StatsInsert</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from each server to the Reporting Database	Log files for the interval	5 minutes	Maintenance
diskUtil.sh	<a href="#"> CI-116334 - DSD BTCH disk Util</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from each server to the Reporting Database	Log files for the interval	5 minutes	Maintenance
diskInsert.sh	<a href="#"> CI-116258 - DSD BTCH Disk Insert</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from each server to the Reporting Database	Log files for the interval	5 minutes	Maintenance
hostavail.sh	<a href="#"> CI-116271 - DSD BTCH Host Avail</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from each server to the Reporting Database	Log files for the interval	5 minutes	Maintenance
http.sh	<a href="#"> CI-116335 - DSD BTCH http</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from each instance of middleware to the Reporting Database	Log files for the interval	Hourly/Daily	Maintenance
httpInsert.sh	<a href="#"> CI-116336 - DSD BTCH http Insert</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from each instance of middleware to the Reporting Database	Log files for the interval	Hourly/Daily	Maintenance
opslog.sh	<a href="#"> CI-116291 - DSD BTCH Ops Log</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from each instance of middleware to the Reporting Database	Log files for the interval	Hourly/Daily	Maintenance
opslog_Insert.sh	<a href="#"> CI-116292 - DSD BTCH Ops Log Insert</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from each instance of middleware to the Reporting Database	Log files for the interval	Hourly/Daily	Maintenance
outage.sh	<a href="#"> CI-116293 - DSD BTCH Outage</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from each instance of middleware to the Reporting Database	Log files for the interval	Hourly/Daily	Maintenance
networkstats.sh	<a href="#"> CI-116287 - DSD BTCH Network Stats</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from CDT Network Monitoring system to the Reporting Database	Log files for the interval	Daily	Maintenance
networkstats_insert.sh	<a href="#"> CI-116288 - DSD BTCH Network Stats Insert</a> <span style="border: 1px solid #ccc; padding: 2px;">IMPLEMENTED</span>	Transfer data from CDT Network Monitoring system to the Reporting Database	Log files for the interval	Daily	Maintenance

## **DSD 5/Architecture – System Administration Performance /Code Table Definitions**

There are no code tables associated with System Administration Performance.

# **DSD 5/Architecture – System Administration Performance /Database Entities**

# **DSD 5/Architecture – System Administration Performance /Database Entities/Reporting Database Entities**

ETL for the following system performance tables in reporting database are actual shell scripts scheduled to run on servers; hence, data is not being derived from any source table/column definition.

See the DDD (Database Design Description) "Appendix F" for table/column descriptions and mapping to the ETLs (shell scripts).

## **DSD 5/Architecture – System Administration Performance /Database Entities/Reporting Database Key Relationships**

There are no key relationships within system performance based reporting database tables. CSV files are generated by shell scripts for direct data load into table.

## **DSD 5/Architecture – System Administration Performance /Business Class Definitions**

System Administration Performance does not use business class definitions within.