

**State Court Administrative Office
State of Michigan**

Technical Architecture Baseline

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Table of Contents

1. Purpose.....	1-1
2. Scope.....	2-1
3. MI SCAO Business Summary	3-1
4. MI SCAO Current Applications Summary	4-1
4.1 AS/400 Systems	4-1
4.1.1 Security.....	4-3
4.2 External Interfaces.....	4-3
4.2.1 Secretary of State Interface	4-4
4.2.2 LEIN Interface.....	4-10
4.2.3 Electronic Warrant Validation Interface.....	4-11
4.2.4 Statute File Interface.....	4-14
4.2.5 State Bar File Interface	4-14
4.2.6 Judicial Data Warehouse Interface	4-15
4.2.7 Prosecuting Attorney’s Coordinating Council / Prosecuting Attorneys Association of Michigan: PAAC/PAAM Interface.....	4-16
4.2.8 Oakland Bindover Interface	4-19
4.2.9 JIS Bindover Interface.....	4-21
4.2.10 JMS Bindover Interface.....	4-22
4.2.11 Imaging Interface	4-22
4.2.12 Caseload Report System Interface	4-22
4.2.13 Ticket Upload Interface	4-23
4.2.14 Traffic Ticket Payment (E-Payment)	4-23
4.2.15 Public Inquiry	4-24
4.2.16 Potential New Interfaces	4-24
4.2.17 Interfaces provided by DMC	4-25
4.3 Microsoft Windows and Novell Based Systems	4-26
5. MI SCAO Current Infrastructure Summary.....	5-32
6. Architectural Constraints and Supplementary Requirements.....	6-34
6.1 Platform	6-34
6.2 Database.....	6-34
6.3 Client Desktops.....	6-34

6.4	Client Deployment.....	6-35
6.5	Server Architecture	6-35
6.6	Scalability.....	6-35
6.7	Availability	6-36
6.8	Storage	6-36
6.9	Email.....	6-36
6.10	Security	6-36
6.11	Accessibility and Network	6-37
6.12	Unsolicited LEIN Printing	6-37
6.13	Reporting	6-38
6.14	Forms Printing.....	6-38
6.15	Development.....	6-39
7.	Architecture and Design Principles	7-39
7.1	Rational Unified Process.....	7-39
7.2	Component Architectures.....	7-39
7.3	Object Oriented Analysis and Design	7-40
7.4	XML and Web Services	7-40
7.5	N-Tier Architecture.....	7-40
7.6	Requirements and Use Cases	7-41
8.	Architecturally Significant Use Cases.....	8-41
9.	Application Architecture	9-42
10.	Technical Architecture	10-51
11.	Environments.....	11-58
12.	Data Migration	12-65
13.	Open Issues for Next Phase.....	13-68
14.	Acronyms	14-69
15.	Appendix A – LEIN/SOS Manual.....	15-71
16.	Appendix B – Electronic Warrant Validation File – Sample	16-71
17.	Appendix C – Statute Bar File – Sample	17-71
18.	Appendix D – State Bar File – Sample	18-72
19.	Appendix E – Judicial Data Warehouse File – Sample.....	19-72
20.	Appendix F – PACC/PAMM files – Sample	20-72

20.1	Details of the Send Process (District) - Overview:	20-72
20.2	Prosecutor to Circuit Court (February 21, 2007)	20-73
20.3	Circuit Court to Prosecutor (February 21, 2007)	20-76
21.	Appendix G – Oakland Bindover Transaction Formats - Sample	21-89
22.	Appendix H – JIS Interface: District Court to Circuit Court (February 21, 2007) 22-89	
23.	Appendix I – JMS Bindovers	23-91
24.	Appendix J – Imaging Interface	24-94
25.	Appendix K – Case Reporting System File Sample.....	25-94
26.	Appendix L - Delay in Criminal Proceeding Sample	26-97
27.	Appendix M - Ticket Upload Interface.....	27-97
27.1	Supplemental UD-8 Field Definitions for JIS	27-97
28.	Appendix N SCAO Form-65	28-105
29.	Appendix O D36 Civil Enhancements.....	29-106
30.	Appendix P D36 Traffic Enhancements.....	30-106

Table of Figures

Figure 1	SOS DEG Interface.....	4-6
Figure 2	SOS IP Socket Interface	4-8
Figure 3	LEIN Interface	4-10
Figure 4	Electronic Warrant Validation Interface	4-12
Figure 5	Microsoft Windows Application Environment.....	4-27
Figure 6	MI SCAO Infrastructure	5-32
Figure 7	Application Architecture	9-43
Figure 8	Technical Architecture.....	10-51
Figure 9	Deployment Architecture at Pilot Capacity	11-60
Figure 10	Deployment Architecture at Peak Capacity	11-63

Table of Tables

Table 1 SOS Interface Functions	4-4
Table 2 Oakland County Bindover and Drawdown Transactions	4-19
Table 3 Microsoft Windows Based Applications	4-28
Table 4 Users	9-45
Table 5 Presentation Services Layer.....	9-45
Table 6 Business Services Layer	9-47
Table 7 Persistence Services Layer	9-48
Table 8 External Interface Services Layer.....	9-48
Table 9 Storage Services Layer	9-49
Table 10 Security Layer	9-49
Table 11 Operational Management Layer	9-50
Table 12 Communications Layer.....	9-51
Table 13 Users	10-52
Table 14 Presentation Services Layer.....	10-53
Table 15 Business Services Layer	10-54
Table 16 Persistence Services Layer	10-54
Table 17 External Interface Services Layer.....	10-55
Table 18 Storage Services Layer	10-56
Table 19 Security Layer	10-56
Table 20 Operational Management Layer	10-57
Table 21 Communications Layer.....	10-57
Table 22 Deployment at Pilot Capacity	11-61
Table 23 Acronyms	14-69

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1. Purpose

The purpose of this document is to describe and define architecture for Next Generation Court Management System (CMS) for Michigan Supreme Courts Administrative Office (MI SCAO)

2. Scope

The scope of the project is defined by business analysis and business use cases. The project covers court functions at following courts

- Juvenile
- District
- Probate
- Circuit

3. MI SCAO Business Summary

The State Court Administrative Office is the administrative agency of the Michigan Supreme Court. The Supreme Court has administrative oversight of Michigan's courts and exercises that oversight through the SCAO. The Judicial Information Systems (JIS) division of the State Court Administrative Office provides technical and automated information system support for the Supreme Court, SCAO, and trial courts. The SCAO supports legacy applications for approximately 233 courts across the State of Michigan. Application services are provided to juvenile, district, circuit and probate courts. Approximately 4,000 total users are serviced via these implementations.

4. MI SCAO Current Applications Summary

4.1 AS/400 Systems

MI SCAO provides and supports large number of court management applications for 237 locations with 4000 users across the state. These court management applications run on IBM AS/400 systems using native ISAM file structure. These applications are



written are in Cobol or CA corporation's 4GL Cool:2E application development tool (for TCS only). Individual users at each of the courts connect to their AS/400 using IBM Client Access AS/400 terminal emulation software running on each user's Windows-Intel machines.

The types of courts supported by MI SCAO are:

- District Courts
- Circuit Courts
- Probate Courts
- Juvenile Courts

The applications that support these courts are classified along the courts types and are as follows:

- DCS Applications for District Courts
- CCS Applications for Circuit Courts
- PCS Applications for Probate Courts
- PCS Applications for Juvenile Courts
- TCS for Trial Courts in Circuit, Probate and Juvenile Courts
- JRY for Jury Selection and management (Not in Scope of Next Generation System)
- XCS (Cross Court System) which is a common system that contains
 - Shared Files (Abstracts, Attorney Bar File, Criminal History, UI Files)
 - Common Functionality (Central Name Index, Central Calendar etc.)
 - LEIN Interface (Warrant Entry, Warrant Cancellation, Criminal History etc.)
 - Interfaces to external agencies such as Law Enforcement, Dept of State (formerly called Secretary of State) SOS, etc

Although MI SCAO develops and maintains the DCS, PCS, TCS and CCS court applications it does not host the applications for all the courts. Many counties and municipalities run the JIS case management applications on their own AS/400 infrastructure, currently there are 89 AS/400s running JIS applications on shared or individual (non-JIS) AS/400s. The remaining 12 courts are hosted by JIS on central AS/400 infrastructure. In addition, JIS provides the integration infrastructure with other State systems for both the aforementioned court locations. JIS maintains dedicated interface to enable interoperability with Secretary of State's (SOS), Date Exchange Gateway (DEG), Michigan State Police's (MSP) LIEN, etc. The externally hosted courts

connect into JIS to send and receive information through the state system interfaces. This approach provides the State Systems with a single integration point instead of connecting to all the court systems individually.

4.1.1 Security

All applications use standard AS/400 authentication and security protocols. Most JIS courts use the following security procedures and standards. Each user of the system is assigned a unique user login id and password. The user login id is up to 10 characters; first character identifies the court type as follows:

- D for District Court users
 - o District Court users have login id with 2nd & 3rd character indicating District with the 4th and 5th character indicating a Division or second location
- C for Circuit Court users
 - o Circuit Court users have login id with 2nd & 3rd character indicating Circuit code and 4th and 5th character indicating county code.
- P for Probate users
 - o Probate court users have 2nd and 3rd character indicating county
- J for Juvenile Court users
 - o Juvenile court users have 2nd and 3rd character indicating county

Remaining characters are a combination of last name or first name or initials. The user passwords are stored natively by AS/400. The passwords have 90 day expiration policy and users have 15 attempts. The passwords have basic restrictions like being more than 3 characters on them. Authorization of individual users is performed by custom code written by MI SCAO that uses a combination of user id and information stored in files to enable access of users to specific functions within their courts. The existing case management systems do not use field level or table level security.

4.2 External Interfaces

One of the important functions performed by centrally hosted AS/400 at MI SCAO is interfacing with external agency systems for various types of functions. MI SCAO interfaces with 14 different external agency systems named as follows:

- o Secretary of State (SOS) Interface

- LEIN/CHR Interface
- Electronic Warrant Validation Interface
- PACC/PAAM Interface
- Judicial Data Warehouse Interface
- Caseload Report System Interface
- Tickets Import
- Imaging Interface
- State Bar File Interface
- Statute File Interface
- Oakland Bindovers Interface
- JMS Bindovers Interface
- JIS Bindovers Interface
- Delay in Criminal Proceeding
- E-Payment Tickets (State of Michigan Electronic Ticket Payment)
- Public Inquiry

4.2.1 Secretary of State Interface

MI SCAO interfaces with Secretary of State (SOS) to perform functions as shown in table 1 via 2 different interface types: Data Exchange Gateway (DEG) and IP Sockets as described in detail below.

Table 1 SOS Interface Functions

Function	Description	Integration Mechanism
Interactive SOS Inquiries	Provide secured access by individual to SOS with the ability to make all of the SOS inquiry transactions as described in the JIS SOS & LEIN Manual. At the time of the inquiry the court clerk should be able to choose if the results should be displayed or immediately printed without further intervention. Court clerk should be able to also	IP Sockets

	forward a displayed result to a printer of their choosing.	
Abstracts of Conviction	On a daily basis, do an FTP PUT to the Michigan Data Exchange Gateway all of the Abstracts of Conviction that have been generated by the trial courts that have yet to be sent to SOS via the DEG.	DEG
Suspensions	On a daily basis, do an FTP PUT to the Michigan Data Exchange Gateway all of the Suspensions that have been generated by the trial courts that have yet to be sent to SOS via the DEG.	DEG
Immediate Clearance of Suspensions	Provide the ability to send a request directly to SOS to immediately clear a suspension and also to accept and print their confirmation. This request may take place including the printing of the confirmation either interactively or without user intervention when the appropriate clearance fees are paid in the CMS.	IP Sockets
Abstract Error Report, Forwarding to Courts (In response to sending Abstracts of Conviction)	Following Secretary of State's overnight batch cycle that posts the Abstracts of Conviction, do a FTP GET from the Michigan Data Exchange Gateway of all of the Abstract Error Reports (DR/1320 Report) and forward them based on their SOS court code to the appropriate printer at each trial court for printing first thing in the morning.	DEG
Batch VPN DLN Lookup, Apply Results to CMS	On a daily basis, or more frequently, submit to SOS VPN or DLN address lookup requests for each recently entered case without a name but that does contain a valid Michigan VPN or DLN. Accept the results of the lookup and if valid post it to the CMS. Invalid results or results that are unable to parse must be included in an error report for the trial court.	IP Sockets
Batch DLN Lookups	Process a group of interactively requested DLN lookups in a single batch job creating a single report for each court while noting the case number	IP Sockets

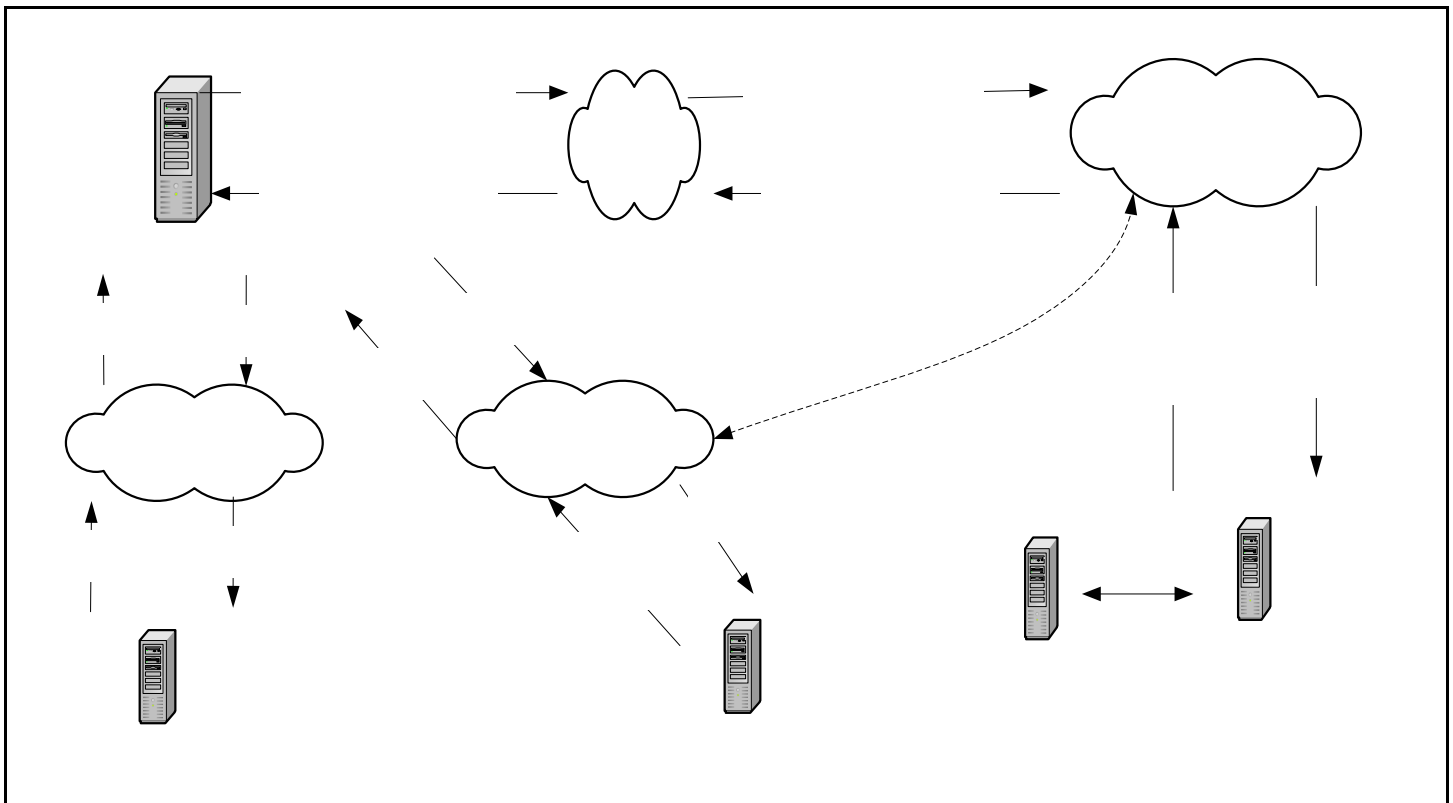
	that each driver record applies to.	
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Data Exchange Gateway (DEG):

As noted in table 1, MI SCAO uses Data Exchange Hub to perform following operations

- Sends Abstract of Convictions
- Receive Abstract Error Reports (also called DR/1320 Reports) which are forwarded to Courts
- Send Suspensions

Figure 1 SOS DEG Interface



1. MI SCAO central AS/400 receives abstract of convictions from various Trial courts via AS/400 to AS/400 communication over LGNET or JUDNET network.

2. MI SCAO AS/400 around 5:30 p.m. consolidates the abstracts of all the convictions that have been sent by Trial courts and sends to SOS's Data Exchange Gateway (DEG) via FTP Put over MSC and SOM Network
3. MI SCAO AS/400 via FTP Get the next morning (around 6:30 a.m.) pull an abstract of error report (DR/1320) generated by SOS at 4 a.m. internal system processes from DEG over MSC and SOM network.
4. MI SCAO AS/400 forwards and prints error reports to appropriate Trial courts.

In Next Generation System Courts will need time to review the abstracts before being sent to the SOS.

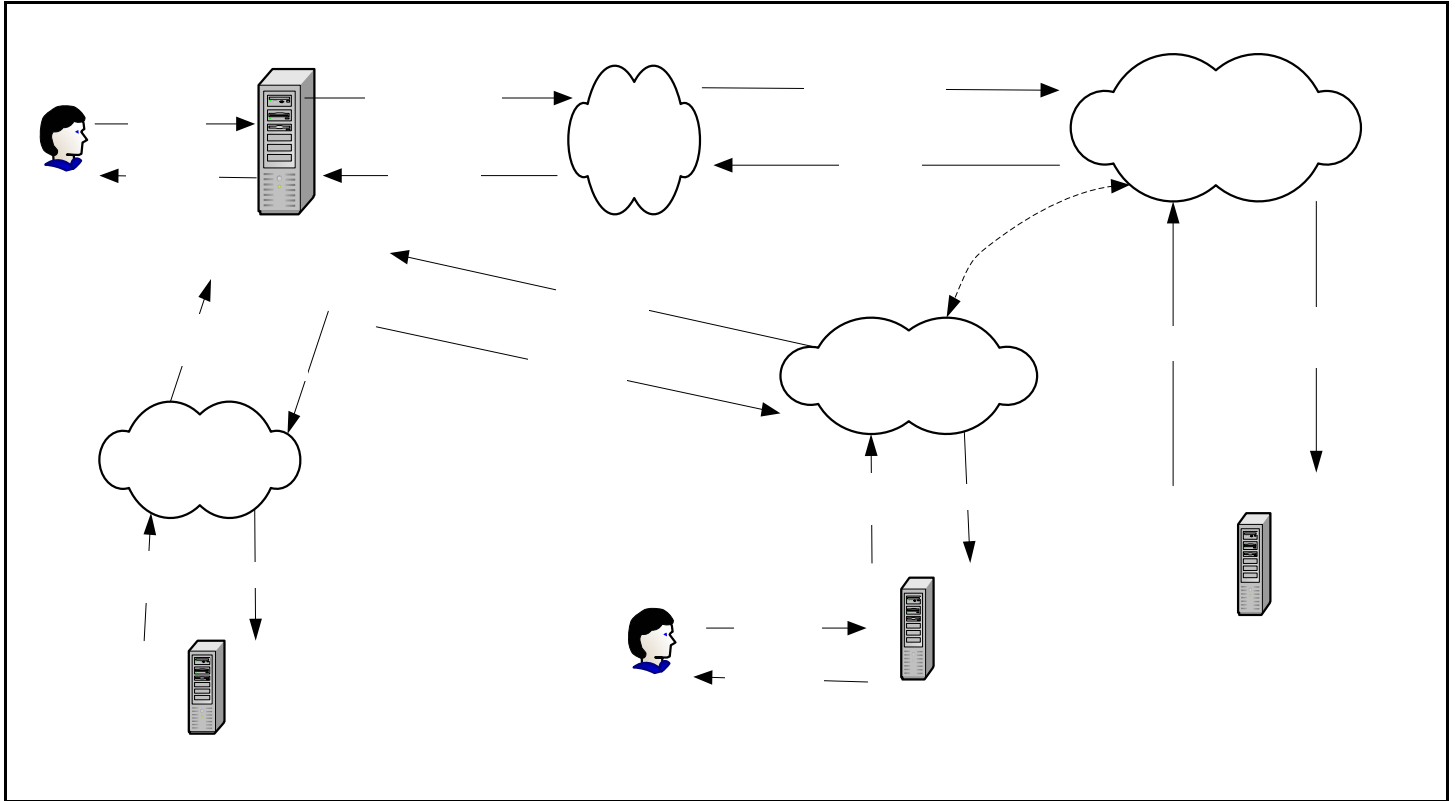
SCAO application uses basic FTP provided by AS/400 and with user name and password provided by SOS Data Exchange Gateway administrators. MI SCAO sends Suspensions to SOS using the same approach as mentioned above in Convictions. SOS does not return any Error Reports back to MI SCAO.

IP Sockets:

As noted in Table 1, MI SCAO uses IP Sockets to perform following operations:

- Perform Interactive SOS Inquiries
- Perform Batch VPN DLN Lookup with results being applied to MI SCAO CMS data
- Perform Batch DLN Lookups
- Perform Immediate Clearances of Suspensions

Figure 2 SOS IP Socket Interface



Inquires:

1. MI SCAO AS/400 application provides functionality to lookup VPN, DLN, etc. The user on a screen enters type of inquiry and inquiry parameters such as last name, driver's license number, etc depending on type of inquiry. The user can also enter the option of either have the results printed or results available for display on screen.

Various types of inquiries with corresponding inquiry codes are:

Batch VPN

1 Inquiry

Inquiry code: 13 – Vehicle Plate Number

Batch DLN –

4. Results

Inquiry Code: 40 – Returns Vehicle End Address

Inquiry Code: 36 – Returns Name, Address and Driving History

2 Inqui

3. R

User

Please refer to LIEN SOS Manual for complete list of inquires and codes.

2. The application constructs an inquiry string. For example, for complete driving record inquiry string constructed by AS/400 application is: 36;1;1 Driver License Number
3. The inquiry string is sent to SOS via an IP Socket connection MSC and SOM networks or LGNET/JUDNET and SOM Network.
4. The SOS on receiving the inquiry processes the inquiry and returns the results back.
5. The AS/400 Application on receiving the results either prints them at user designated printer or displays it on the screen depending on option chosen by the user when the inquiry was initially placed.

Note: VPN and DLN inquiry are termed as batch because of AS/400 Application internally polls periodically and collects all the inquiries. However from the perspective of SOS application each inquiry is received separately.

Perform Immediate Clearances of Suspensions

While transmission of Suspensions from MI SCAO to SOS is done on a daily basis as described earlier in Data Exchange Gateway section, the Clearances of these Suspensions needs to be done immediately in manner similar to interactive Inquires described above. MI SCAO AS/400 application sends a request to clear suspensions via IP Sockets. The SOS Application returns the confirmation which is then routed by MI SCAO AS/400 to appropriate printer. The response message from SOS will update the Register of Actions (ROA) in the JIS Case Management System.

Appendix A provides LEIN, SOS Interface formats and screens.

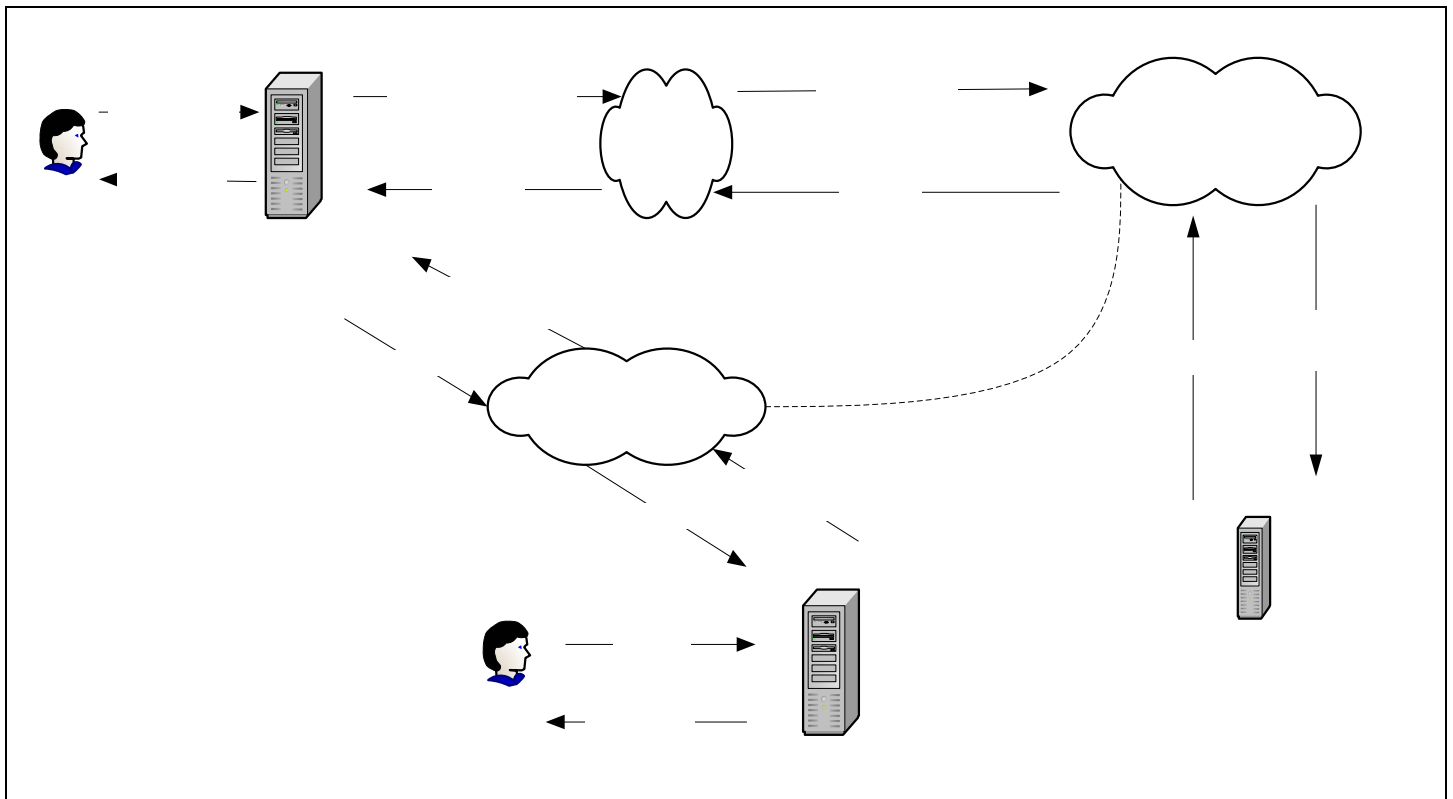
Transaction Volumes:

- The peak number of request transactions/hour to SOS in last 2 years was 1119, reached on 8/30/2005 between 2:00 P.M.- 3:00 P.M. MI SCAO received 1200 responses containing a total of 1300 records in an hour for the above requests submitted.
- The total numbers of requests in year 2005 were 1412566 and in year 2006 were 1600458.
- Range of records sent to SOS by FTP daily are Abstracts: 2500-5500 and Clearances:500-2500

4.2.2 LEIN Interface

LEIN (Law Enforcement Information Network) is a system hosted by Michigan State Police. LEIN provides access to criminal justice information at state and federal level such as NCIC and NLETS to all justice agencies in state of Michigan. LEIN provides access to criminal histories, criminal history reporting, warrant entry/recall, out of state driving records, entry and cancellation of conditional bond release information and probation orders, etc. The MI SCAO AS/400 located at courts and centrally use IP socket based communication to interface with the LEIN system. The interface functions in a format similar to SOS interface. The LEIN Interface provides following functions:

Figure 3 LEIN Interface



The following series of steps that typically takes place:

1. The user initiates the data entry or inquiry. The user has an option of receiving printed results or being displayed on the screen.
 - Inquiries are of type Q, QWAR, QHW, QR, ZO, etc
 - Data entry and modifications are of type Wanted Person and Missing Person records, Probation orders, Conditional bond release, Warrant Entry, etc
2. The AS/400 application constructs a request message that also contains ORI number and sends it to the LEIN system. The AS/400 application uses Core Secure Tunnel software to securely communicate with LEIN.
3. The LEIN system on receiving the request check authorizes the ORI number and then processes the request and prepares a response message and sends the response back.
4. The AS/400 system on receiving the response reformats and sends the message to the appropriate screen/application or printer as indicated by the message.
 - In case of warrants, an additional action of updating the Register of Actions (ROA) is also performed by AS/400.
 - The message length for warrant data is set at 4K characters.
 - The response message addressing a single query may be returned in more than one message and may not be transmitted in one continuous series.

These services are also provided for the city attorneys, prosecutors, etc via MI SCAO central AS/400.

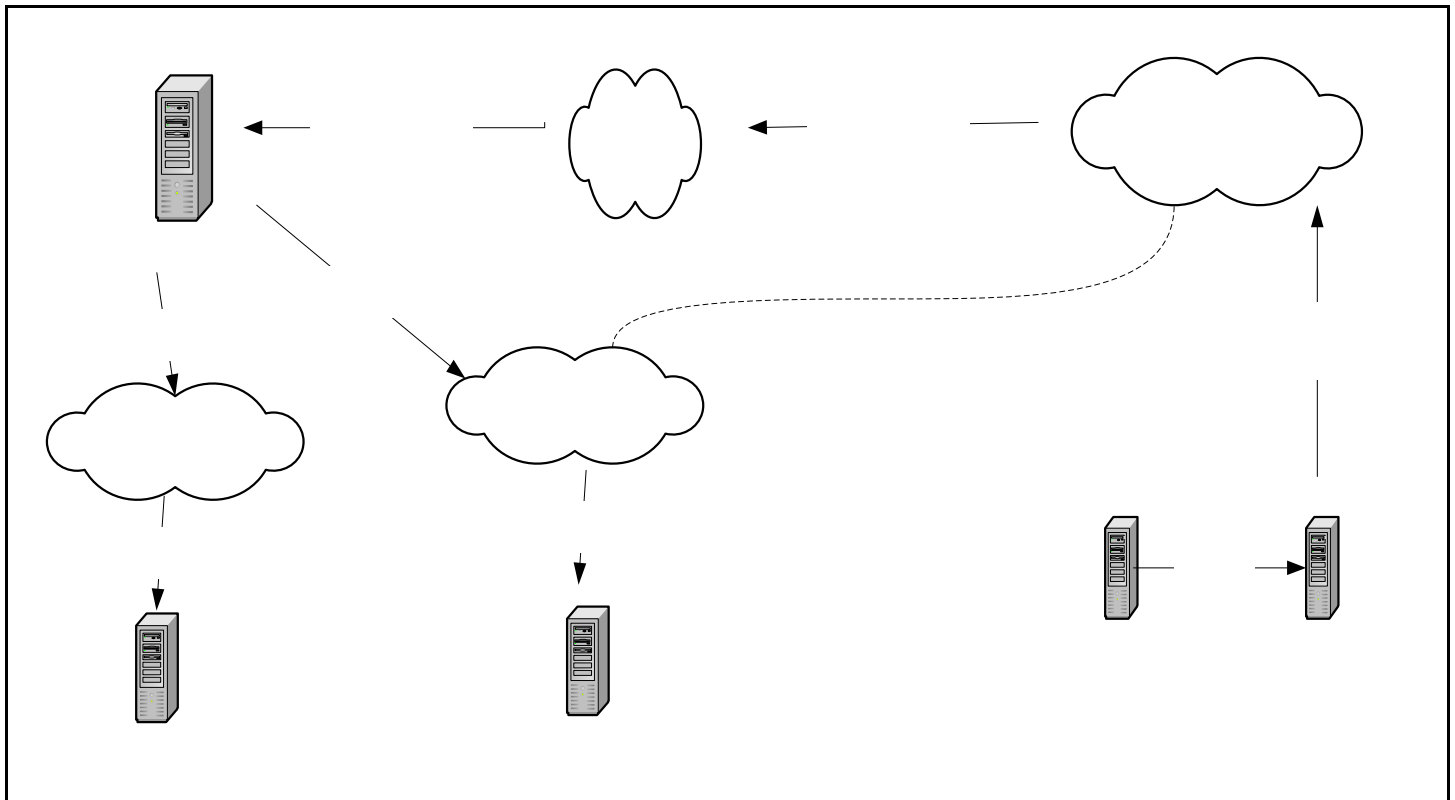
An application, known as Sex Offenders, is scheduled to retire in March 2007 and is to be replaced by a web application provided by the Michigan State Police.

The MI SCAO central AS/400 application also sends and prints unsolicited admin LEIN messages and other messages such as Warrant cancellation to Courts AS/400.

4.2.3 Electronic Warrant Validation Interface

The MIS SCAO AS/400 applications provide capability to electronically validate active warrants by obtaining a list of outstanding warrants from the Michigan State Police (MSP) and delivering them to the appropriate courts.

Figure 4 Electronic Warrant Validation Interface



The following are steps that perform Electronic Warrant Validation:

1. Michigan State Police (MSP) drops a file containing active warrants to Data Exchange Gateway in a predefined folder.
2. MI SCAO AS/400 application on Tuesday 8 p.m. that falls between 11th and 17th of the month, performs FTP Get connect to the Data Exchange Gateway (DEG)

and retrieves file containing warrants. The data found in this file is current as of first Saturday of the month.

Appendix B shows sample file from MSP.

3. After the Warrants file has been collected the MI SCAO AS/400 application identifies the warrants and determines destination system of the related District Court. The application splits the file into appropriate system-based sections and adds a new record to each chunk to record the "As-Of" date for the latest data collected. The Birth Date field of the record structure is used to accomplish this purpose while the remaining fields are ignored.
4. After the destination is determined, the application uses SNAD to transfer the split file to destination AS/400 systems.

The following morning (at 8:15 am), District Court application (SOSPost) runs to copy the warrants data to the DCSDB Library (folder) as the "Warrants" file to be used by JIS applications.

Apart from the process described above, the AS/400 also generates four reports, on demand, for *all* warrants and also for the *three-month-lag* time span, hence creating a total of eight reports.

- Warrants
- Injunction Orders
- Errors
- Reverse Check

In general, only 1/12th of the warrants are required to be validated each month and the reconciliation lags by three months. For instance, in February, the reconciliation is done for the month of November of last year. Currently, traffic criminal reports are the only ones that are being processed.

Transaction Volumes:

- The peak number of all request/hour to MSP in past 2 years was 1399 reached on 2/24/2006 between 10:00 A.M.-11:00 A.M. MI SCAO received 2500 responses containing a total of 3000 records in an hour for the above submissions.
- The total number of requests in 2005 was 1085455 and in year 2006 were 1414958.

4.2.4 Statute File Interface

Courts need to use latest and specific charge codes supplied by PACC. MI SCAO obtains these charge codes in a text file. MI SCAO includes the Statute File update during every JIS Case Management System release.

The following series of steps typically takes place in the process:

1. The MI SCAO contacts PACC via email/phone and request an updated version of charge codes.
2. PACC sends file (TR1PACC.txt) containing all the latest charge codes. PACC may send the file on a CD or in email.
3. MI SCAO incorporates the file in an existing AS/400 application system. The resulting file is called the PACC file.
4. The PACC file is included in the software release and is updated locally during the installation.

Note: District Courts are not updated by the system; the responsibility of that task lies with the individual district courts.

See Appendix F for technical specifications and a sample of Statute File (TR1PACC.txt file).

Transaction Volumes:

- The total numbers of Statute File records received from PACC/PAAM in year 2005 were 3816 and in year 2006 were 3926

4.2.5 State Bar File Interface

The State Bar File is a list of all the attorneys registered with the Bar Association of the State of Michigan. The State Bar record contains a Bar Number (unique id), Name, Address, City, State, Phone and associated contact information. The State Bar File is updated before every software release, which occurs twice a year.

State Bar File Update Process:

1. MI SCAO contacts State Bar Association via phone/email and requests State Bar file.

2. The State Bar Association provides state bar information in a comma delimited file (SCAOEXPORTmmddyy.txt) via email.
3. The file obtained in step 2 is placed on a shared network drive.
4. The MI SCAO AS/400 script - PROFUPD adds locally during a software release with the information collected in step 3 by:
 - Checking the timestamp on each record and updating only if the date is older than the date found in the updates.
 - Comparing each field on the record that needs updates
5. A script is also run to populate the Oracle database that is used by Microsoft applications with the latest information available from step 3.

The PROFILE is used by Circuit, District, Probate & Juvenile courts, but Trial Court System (TCS) also makes use of this file only to update attorneys' information.

See Appendix D for technical specifications and a sample of State Bar File.

Transaction Volumes:

- The total numbers of State Bar File records received from PACC/PAAM in year 2005 were 49350 and in year 2006 were 50297

4.2.6 Judicial Data Warehouse Interface

Judicial Data Warehouse (JDW) is data warehouse that aims to provide single unified source for all cases in state of Michigan. The system already contains 21 million cases from more than 181 Courts and 80 counties. Court application vendors such as MI SCAO, Maximus, QuadTran, etc provide data feeds to JDW. JDW is maintained by a vendor Bull Systems and is OLAP system hosted on 8-node TeraData system. Non-JIS Courts vendors and TCS create a standard file format that is sent to the JDW. CCS, DCS and PCS send data file to JDW to be parsed and loaded. .

MI SCAO central AS/400 and courts AS/400 sends an entire AS/400 file containing following information.

JDW extracts the following from this file (for TCS the extracts are performed by MI SCAO AS/400:

- Case

- Case Party/Alternate Name
- Case Charge
- Ordinance & PACC/PAAM data
- Police Agency

MI SCAO AS/400 performs FTP Put on last Saturday every month to JDWFTP machine and drops the file for JDW. The connection is made to JDWFTP over LGNET network.

See Appendix E for technical specifications and a sample file created by MI SCAO for JDW.

Transaction Volumes:

- As of 2/2/2007, there are now 80 Counties represented on the JDW and 181 Courts. JDW contains 21,821,546 Cases and 29,911,634 parties. Refresh to JDW is done monthly.

4.2.7 Prosecuting Attorney's Coordinating Council / Prosecuting Attorneys Association of Michigan: PAAC/PAAM Interface

The PAAC/PAAM Interface is used to transfer case initiation information between the Prosecutor System and the District Court System (DCS), Circuit Court System (CCS) or Trial Court System (TCS). Each County operates an AS/400 that host DCS and/or CSS. The County provides direct IP access between Prosecutor System and the AS/400. The Prosecutor System is responsible for initiating the PAAC/PAAM Interface though FTP PUT or FTP GET. The interface is based on the Criminal Tracking Number (CTN) generated by the Prosecutor System.

4.2.7.1 Warrant Information Send (Prosecutor to CCS / DCS)

1. The Prosecutor System sends warrant information to the XCSDB Library / PIWORK file on the AS/400 through an FTP PUT. The FTP file contains multiple CTN case records.
2. A database trigger is activated when a record is inserted into the shared file. A process will parse the data file by finding the ORI number to determine if the

record will be transferred to DCS or CCS. The records are then written to the specific DCS or CCS database.

4.2.7.2 New Case Information (CS) and Disposition Send (DS) (DCS to Prosecutor)

1. The DCS sends New Case Information (CS) and Disposition Send (DS) to the XCSDB Library / RTVPROCTN file on the AS/400. (Processed through a nightly batch)
2. The Prosecutor System will execute a FTP GET to the RTVPROCTN file to retrieve the information.

4.2.7.3 Case Update, Charge Dispositions & Scheduled Events (CCS to Prosecutor)

1. The CCS will scan the application's audit log for critical information that is aggregated into a temporary file. (Processed through a daily batch)
2. The transaction log is scanned for New Cases, Dispositions, Bond Information, Scheduled Events and Sentencing.
3. A temporary file will be written to the XCSDB Library / RTVPROCTN file once the batch process has completed the scan of the previous days transaction log.
4. The Prosecutor System will execute a FTP GET to the RTVPROCTN file to retrieve the information.

The following table defines the 4 transaction types used in the PAAC/PAAM Interface:

Transaction Name	Transaction Code	Sending Agency	Receiving Agency	Integration Mechanism	Description
Warrant Send	02 = Case RCD 03 = Defendant RCDS 04 = Charge RCDS	Prosecut or	District Court System (DCS) or Circuit Court System (CCS)	FTP PUT	Prosecutor System passes CTN data to DCS or CCS
New Case Information	06	District Court System (DCS)	Prosecutor	FTP GET	DCS passess new case information including Judge assignment to

					Prosecutor
Disposition Send	08	District Court System (DCS) or Circuit Court System (CCS)	Prosecutor	FTP GET	DCS Disposition passed to Prosecutor
Case Update Charge Dispositions Bond Info Scheduled Events	06, 07, 08 07 = Bond 08 = Charge 81=HAB Notice 09=Sentence 91=Sent Notice	Circuit Court System (CCS)	Prosecutor	FTP GET	The CCS audit file is scanned for critical events including New Cases, Dispositions, Bond Info, Scheduled Events and Sentencing. The information is passed back to the Prosecutor.

DCS and CCS AS/400's are connected to PACC/PAAM over local area network.

Appendix F for technical specifications and a sample of PACC/PAAM files.

4.2.8 Oakland Bindover Interface

The MI SCAO provides an interface with Oakland County for Warrant and Bindover information. The interface is unique to Oakland County and is operated by the Oakland County IT Department. The interface is maintained over a dedicated data circuit and the data is transferred through an IP socket connection that is opened and closed as needed. The JIS servers located in Cadillac Place aggregate bindover transactions from local Oakland County District Courts that maintain their own AS/400 running the JIS District Court CMS application. The MI SCAO is responsible for initiating communication with the County through the interface. The interface is based on the Criminal Tracking Number (CTN) generated by the Prosecutor System. The SCAO opens the connection each morning at 7am to check for records in the file queue. The SCAO will then ping the connection every 4 minutes for data or when a user request from the District Court System initiates the interface.

The following table defines the 4 transaction types used in the Oakland County Interface:

Table 2 Oakland County Bindover and Drawdown Transactions

Transaction Name	Transaction Code	Sending Agency	Receiving Agency	Description
Warrant Request (Drawdowns)	WR	District Court System (DCS)	Prosecutor System	DCS requests case information from Prosecutor System by CTN #
Warrant Send (Drawdowns)	WS	Prosecutor (Oakland County)	District Court System (DCS)	Prosecutor System sends information associated with the CTN which is used to initiate a case in DCS
Disposition Send (Bindovers)	DS	District Court System (DCS)	Circuit Court	Bindover of District Court cases to Circuit Court
Event Send	ES	Circuit Court (Oakland)	District Court	Case Record sent from Circuit Court



(Bindovers)		County)	System (DCS)	to update ROA in DCS
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Appendix G provides sample of formats for WR, WS, DS and ES transactions.
This interface operates over LGNET/JUDNET and SOM networks.

Transaction Volumes:

- The peak number of request/hour sent to Oakland in last 2 years was 53 on 5/26/2006 between 10 A.M-11 A.M. 55 peak number of responses were received on 9/29/2005 between 3 P.M.-4 P.M.
- The total numbers of requests in year 2005 were 14734 and in year 2006 were 24774

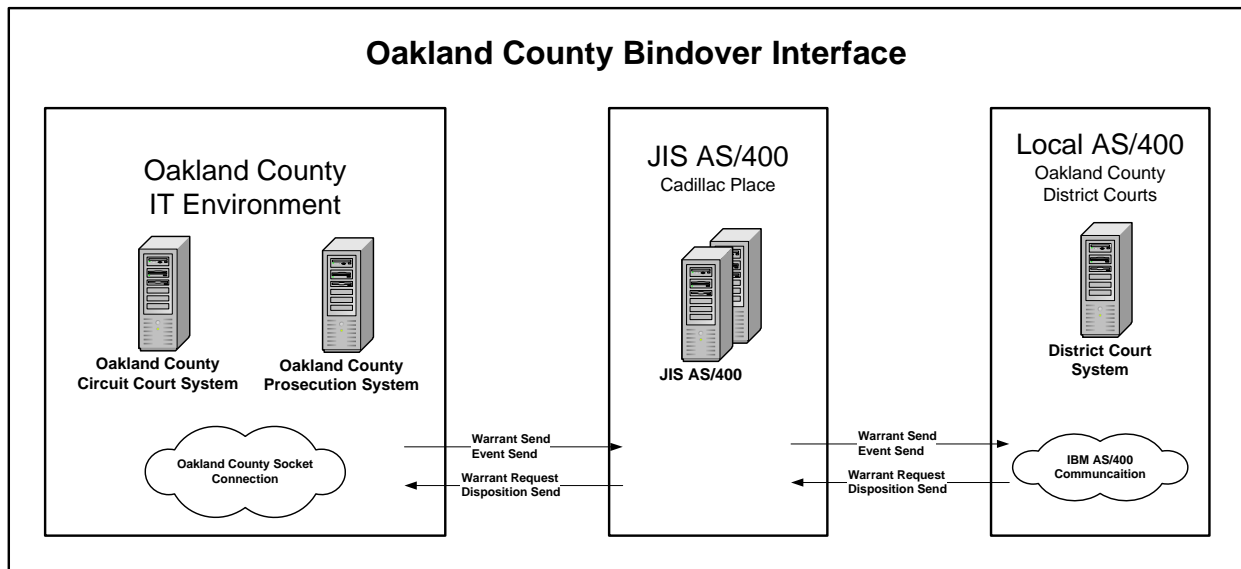
4.2.8.1 SCAO CMS Triggered Warrant Transactions

- 1 Users of MI SCAO District Court AS/400 (DCS) requests for Warrant information on the screen.
2. MI SCAO District Court AS/400 (DCS) application opens an IP socket connection every day 7 a.m. to Oakland County's Prosecutor machine Oakland IT (mainframe) over a dedicated point to point connection.
3. MI SCAO District court AS/400 (DCS) sends a Warrant request (WR) to Oakland County Prosecutor system. The request contains identifying CTN (Criminal Tracking Number) and ORI numbers of sending court and receiving court/prosecutor.
4. Oakland County System sends a Warrant (WS) back to DCS.
5. DCS on receiving information on the CTN initiates a case in DCS

4.2.8.2 SCAO CMS Triggered Bindover Transactions

- 1 Users of MI SCAO District Court AS/400 (DCS) at the time of disposing a case, finds a case is to be bound over to circuit (determined by the disposition code), a screen is displayed to the user to enter Bindover information. When user presses enter, the Bindover request is generated and sent to the Circuit court.
2. MI SCAO District Court AS/400 (DCS) application opens an IP socket connection every day 7 a.m. to Oakland County's Prosecutor system over a dedicated point to point connection

3. MI SCAO District court AS/400 (DCS) sends a Bindover (Disposition Send - DS) to Oakland County Prosecutor system. The request contains identifying CTN (Criminal Tracking Number).
4. Oakland county circuit court sends a Case (Event Send ES) to DCS. DCS updates to Record Of Action information (ROA).



SEE Appendix G for Technical Specifications.

4.2.9 JIS Bindover Interface

The JIS Interface is used to send Bindover and Transfer case information between District and Circuit Courts using CCS, TCS and DCS. The JIS interface is employed when the courts systems are both run on the same AS/400 where the case information can be transferred directly within the AS/400 through native ISAM record updates. The JIS Interface will be inherent in the Next Generation Case Management System through the implementation of the ICMS multi-jurisdictional framework.

Note: In the new system this process will be part of the multi-jurisdictional framework where case information.

Appendix H for Technical Specifications

4.2.10 JMS Bindover Interface

Judicial Management System (JMS) is a 3rd party private Case Management System that is used by several District Courts. There are approximately 20+ District Courts using JMS; however, there are only few courts using the interface. The JMS Interface is used to send Bindover information from District (JMS) to Circuit Court Systems (CCS). The JMS Interface is only employed when the CCS and JMS systems run on the same AS/400. Case information is transferred through a shared Library (Folder) on the AS/400. The shared library (folder) is “owned” by CCS and JMS has rights to create records. A database trigger is activated when a record is inserted into the shared Library (Folder). The trigger updates the CCS system with the Bindover case information and deletes the record from the shared Library (Folder). The JMS Interface uses the same data structure as the PAAC/PAAM Interface.

Appendix I for Technical Specifications

4.2.11 Imaging Interface

The current SCAO JIS Case Management Systems (CMS) use legacy AS/400 program names based on the “Real Vision” imaging product to integrate to 3rd party imaging systems. Many of the existing imaging systems are the “Cherry LAN” AS/400 based system. The current imaging process uses an external AS/400 call to the county provided imaging system.

The Next Generation System will need to provide interface that allows invocation on Imaging Interface locally on user machines. This interface will be limited to passing parameters such as case number, event number to a command line application invocation.

4.2.12 Caseload Report System Interface

All of the current SCAO JIS Case Management Systems (CMS) are capable of creating a caseload report/file through a program in the AS/400. Once the caseload file has

been created the user can export the report/file to a PC via a data transfer command. The caseload report/file is a single table that itemizes case processing including filings, adjudications and case aging. The report/file is sent to the SCAO through the Web based Caseload Reporting System (CRS). Local court users are required to logon to CRS and upload the report to the system. Local courts typically review the caseload report before sending the file to SCAO to make sure the statistics have been updated in their CMS. The report/file is sent to SCAO annually and is due at the end of January for the previous year.

Appendix K for technical specifications and a report/file specification.

4.2.12.1 Delay in Criminal Proceeding (DCP) Interface

The Delay in Criminal Proceeding (DCP) Interface operates in the same manner as the Caseload Interface. The DCP report/file is sent to the SCAO on a quarterly basis. The report/file specification for the Delay in Criminal Proceeding (DCP) Interface is provided in Appendix K.

4.2.13 Ticket Upload Interface

The UD8 is a uniform ticket defined by the Michigan State Police (MSP). The Ticket Upload Interface is used to import a flat file containing the 1400 character records that contain the UD8 data elements. The flat file containing the UD8 information is uploaded to a PC via floppy disk, email or FTP where it is then transferred to a temporary file on the AS/400 for processing. The user is able to select tickets one at a time a process them into the court system. As tickets are processed they are automatically deleted from the temporary file on the AS/400. The Next General CMS will need to process UD8 tickets in the same manner.

4.2.14 Traffic Ticket Payment (E-Payment)

The traffic ticket payment allows general public to make payments for traffic tickets over the web. Currently the Traffic Ticket System sends such payment information to AS/400 in a MQSeries message. The message contains data in XML format. An 'Virtual Cashier' AS/.400 program post the payment message to its datastore.

Appendix M shows format of file received from traffic ticket payment system.

The new system will continue to receive this information from the Traffic Ticket Payment system.

4.2.15 Public Inquiry

The public inquiry system available provides web internet access to case information to general public. The system allows searching of cases by last and/or first name and shows following case information:

- Case#
- Judge
- Court information
- File Date
- Case type
- Case status
- Plaintiff information
- Defendant information
- Events

The public inquiry system currently retrieves information from AS/400. The Next Generation system will need to replace the public inquiry with similar functionality but will need to retrieve and display data from Next Generation centralized database.

The public inquiry system is available at url: at <https://secure.courts.michigan.gov/jis/>.

4.2.16 Potential New Interfaces

- Pontiac Ticket Reporting Import/Export exchanges information through a flat file.
- MI-CSES: Michigan Child Support Enforcement System: This is not a current interface. The MI-CSES interface would exchange child support data are possibly receive data back. The new system may also provide an indicator to

that a case/child is part of CSES. (This part may be a Judicial Data Warehouse issue)

- Department of Corrections (DOC): Sentencing Information
- Financial File Exports: Checks, Transmittals, vouchers, etc...
- Law Enforcement: May receive same data as PAAC/PAAM
- Department of Human Services (DHS): Data Sharing, (207 Report Upload – Juvenile Financial Report)
- MAACS (Michigan Appellate Assigned Counsel System): receiving court appointed counsel, sending appeal packet (future)
- Court of Appeals: sending Circuit case information (future)
- SADO (State Appellate Defender Office): sending appeal packet (future)
- PACC/PAAM: sending appeal packet (future)

4.2.17 Interfaces provided by DMC

Following are interfaces that are currently provided by independent vendor DMC. DMC works independently with D36 (metro Detroit area) courts and provides programming support to courts. DMC has developed these applications/interfaces as part of such support.

Following interfaces will need to be supported by Next Generation System either as an interface or part of core functionality:

- Bond Check: Bond Check application prints checks with MICR code from data in AS/400.
- Collection: Collection accumulates all tickets and prints bills and mailers. It further interfaces with Address Sync to check the validity of address while creating mailers.
- Bind Draw: Bind Draw is core business functionality that will need to be supported as documented in business use cases by Next Generation System
- Debt Referral: Debt Referral is a core business functionality that will be need to be supported as documented in business use cases by Next Generation System.

- Address Sync: Address sync is software that is used by collection to verify mailer address. Next Generation will need to interface with Address Sync.
- JSIS: JSIS extracts calendar file and loads it to video recording software at courts.
- Civil Enhancements: Provides civil filings, bailiff processing, court scheduling, reporting and civil extensions. Appendix O describes details of the interface
- Traffic Enhancements: Provides case initiation, bond processing, court scheduling, and interfaces to GC services. Appendix P describes details of the interface

Batch upload and edit of MSU parking tickets for D54B, has been covered in the Business requirements gathering.

Following interfaces/applications will not need to be provided by Next Generation System

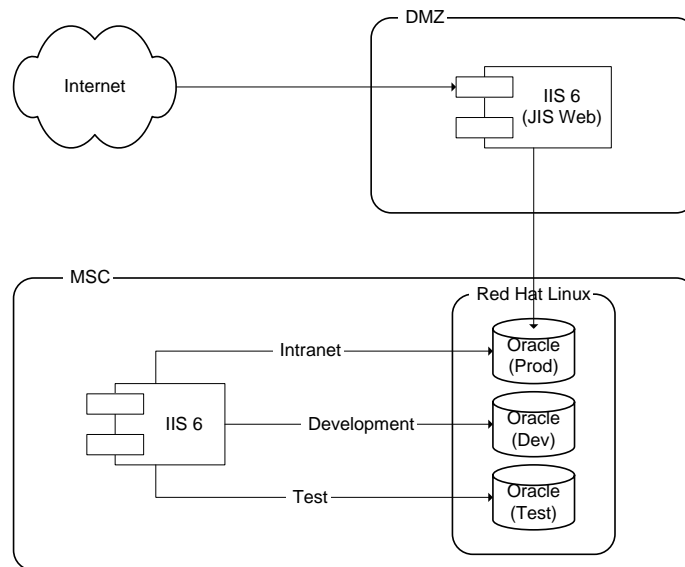
- Label: Label produces paper labels to placed on case file folders for Judge's convenience.
- Action in Court Form
- Jury Check
- Live Scan
- Matrix Interface

4.3 Microsoft Windows and Novell Based Systems

The MSC network is equipped to support Windows based servers, desktops and laptops. Currently, there are very few laptops in the system. The windows environment consist of Windows XP as desktops and following as servers

- Windows 2003
- Windows 2000
- Windows NT. The Windows NT operating system is in use on few systems and will be upgraded shortly.

Figure 5 Microsoft Windows Application Environment



Servers:

- SharePoint Portal Server
- SQL Server; that is used by the Microsoft SharePoint Portal Server
- IIS 6.0
- Call Manager with VOIP capabilities
- eDirectory
- Active Directory
- Groupwise (Novell general email)
- Symantec SAVMail (SMTP server for miscellaneous purposes)
- Tivoli Storage Manager
- MSC Website IIS Web Server (courts.mi.gov)
- Courts of Appeals IIS Web Server (COA)

In-house Development:

The JIS creates and provides applications that are used by users within the MI court system. The applications use following technologies:

- Web applications with ASP.Net 1.1 and 2.0 (using VB.Net and C#)
- Desktop applications using Visual Basic 6
- Oracle 10g – used by in-house applications
- IIS 6.0 supports web applications
- Source Safe 6.0 used for source control
- Visio – used for producing some UML / Block diagrams and Data Models

Security of web applications is based on Oracle database access.

Following is a list of applications that will not be replaced by the Next Generation System. Some of these may need to exchange data with the new system.

Table 3 Microsoft Windows Based Applications

Application Name	Description	Users	Data from New System
Caseflow System	Web application that tracks new applications to the Supreme Court as well as related motions, orders, conferences, etc.	Supreme Court Clerks and Commissioners Offices	None
Caseload Reporting System (CRS)	Web application that collects the annual court caseload and dispositions, as well as case age at disposition and pending case age for each judge's assigned caseload.	SCAO, Trial Courts	See Appendix K
Counsel Appointment System (CAS)	Web application that collects the bar numbers of court appointed counsel and the amount each was paid annually.	SCAO, Trial Courts	None
Court Reporter and Recorder Certification System	Web application that allows court reporters/ recorders to register for exams and renew certifications. It also allows the SCAO users to manage exams and renewals, track	SCAO, Court Reporters and Recorders	None

(CoRReCS) complaints, and generate show cause letters.

Finance System	Web application that allows users to enter payments and receipts which are then transmitted in a daily batch to the Department of Management and Budget.	Finance Department	None
Issue Tracking System	Web application that allows users to enter and track bugs, enhancement requests, and help desk calls for all of our applications.	SCAO	None
Jury Fees System	Web application that collects the amount paid to jurors on a semi-annual basis.	Finance Department, SCAO, Trial Courts	None
Michigan Judicial Institute Seminar Information System (MJISIS)	Web application that tracks training sessions available through MJI, as well as the attendees, instructors, etc. for each session.	Michigan Judicial Institute	None
Roll of Attorneys System (RAS)	Web application that tracks disciplinary action for all attorneys in the state of Michigan.	Supreme Court Clerks Office	None

Trial Court Information System (TCIS)	Desktop application that tracks information for trial courts, judges, and key employees of the courts.	SCAO	None
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Applications in Development

Drug and Drunk Driving Case Reimbursement System	Web application that will collect the annual number of drug and drunk driving cases filed at the Circuit and District courts.	Finance Department, Circuit and District Courts	None
Delay in Matters Submitted to Judge Report (DMS)	Web application that will collect information on cases that were submitted to each judge and a decision was not made within 56 days for each quarter.	SCAO, Trial Courts	None
Delay in Criminal Proceedings Report (DCP)	Web application that will collect information on criminal cases that are pending or disposed after 126 and 301 days for each judge and quarter.	SCAO, Trial Courts	See Appendix L
Judicial FICA Reconciliation	Web application that will track the FICA payments made to each judge during the year.	Finance Department, Trial Courts/Funding Units	None

Foster Care Review System	Web application that will import selected wards of the foster care system from the Department of Human Services and track them through a review process.	Foster Care Review Board	None
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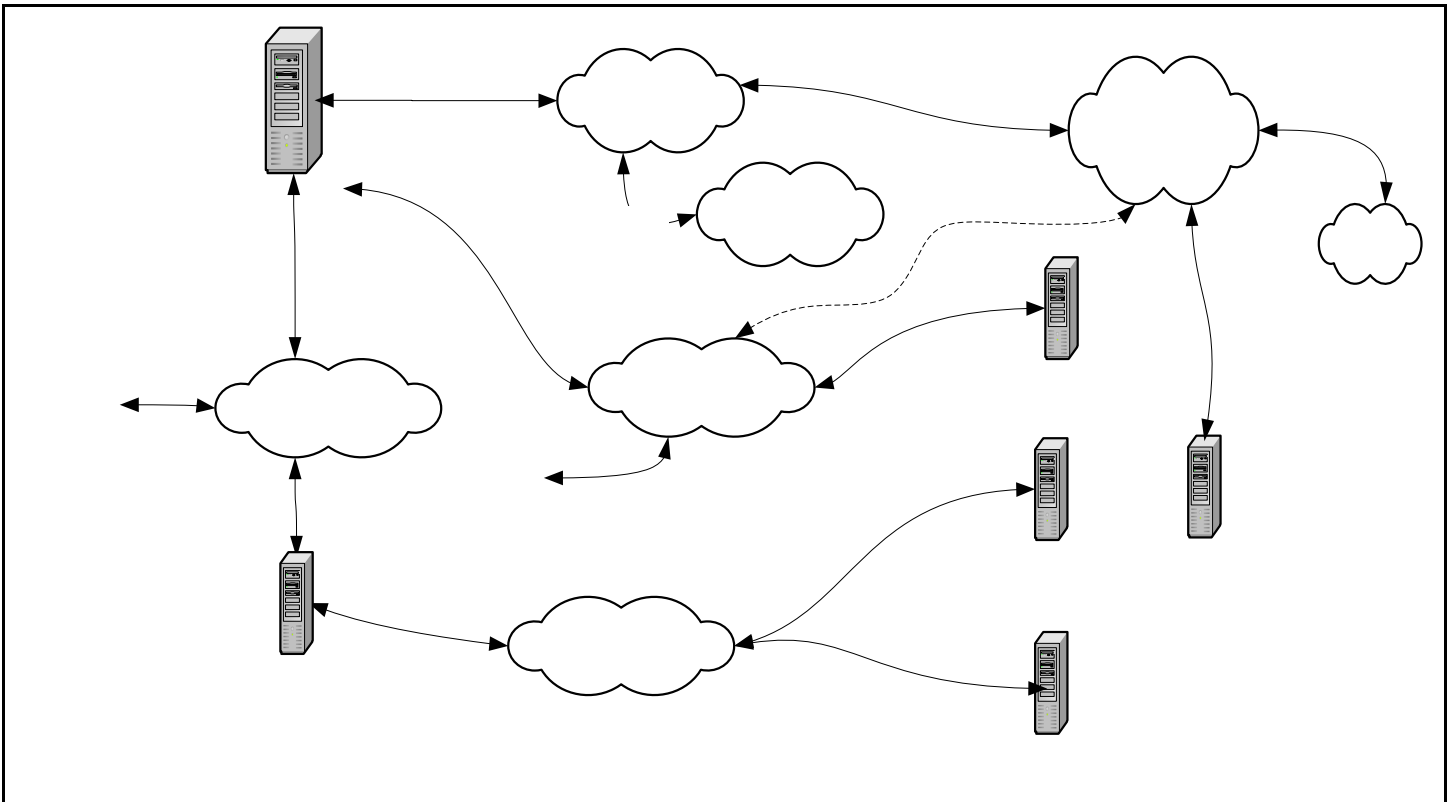
Future Applications:

Absent Without Legal Permission	Missing foster children will be imported monthly from the Department of Human Services and courts will update their statuses.		None
Collections and Receivables Reports	Collect information on outstanding collections and receivables from trial courts annually.		Court, Funding Unit, Location, Days Outstanding, Criminal/Civil, Cash Code, Assessed Year, Assessed Amount, Paid/Adjusted Year, Paid/Adjusted Amount
FOC Grievance Records	Used for monitoring Friend of the Court grievances and grievance responses.		No
Fee Transmittal Reports (Department of Treasury)	Submit electronic report of fees collected to the Department of Treasury		No

Deficiencies in Guardianship/Conservatorship Administration Report	Used to determine whether probate courts are adequately monitoring fiduciary deficiencies that have existed for more than 182 days.	See Appendix N
Complaint Log	Track complaints made to regional offices in order to identify trends.	No
Access and Visitation Form	?	No
Michigan Trial Court Incident Report	Collect data on security threats called in to the trial courts.	No

5. MI SCAO Current Infrastructure Summary

Figure 6 MI SCAO Infrastructure



- Court's outside Metro Detroit area are on shared network named LGNET. This is IP based with bandwidth of 512 to T1 network.
- Courts in Metro Detroit area are on frame relay JUDNET network. This is IP based with bandwidth of segmented T1.
- Every court does have router but may or may not have access to Internet.
- MI SCAO JIS is also on LGNET, JUDNET and SOM (state of Michigan) network.

MI SCAO

Backups and Disaster Recovery

A complete backup of AS/400 is performed every Monday morning. Backup of selective files, e.g. security, configuration and data related files is performed daily. No transactional based backup is performed.

MI SCAO JIS currently employs tape based disaster recovery, wherein the backup tapes are stored at an off-site location. JIS does not currently employ any replication over distance or replication storage technologies for disaster recovery.

6. Architectural Constraints and Supplementary Requirements

To ensure that target architecture is being developed with correct assumptions and appropriate target business and technical environment, it is essential to understand all constraints in which final product needs to operate. These constraints serve as predicate that restrains the target architecture.

Following are constraints for the Next Generation system:

6.1 Platform

- MI SCAO in order to standardize platform of development, deployment, streamline support and take advantage of advances in technology would like to embrace Microsoft .NET Platform and its suite of products. The system must be on Microsoft .NET platform and use Microsoft development tools and servers where possible.

6.2 Database

- The system must have centralized database servers for all the courts. Currently a large number of courts have their own AS 400 machines with data stored locally on these machines. MI SCAO wants to move from this de-centralized to centralized application paradigm. Access to data in the centralized database, is controlled based on authorizations and the courts the user is assigned to.

6.3 Client Desktops

- MI SCAO does not have ownership or technical control over individual user machines (desktop or laptops) at each of the courts. MI SCAO can however request availability of basic software such as Internet Explorer, PDF Viewer,

.NET runtime libraries, etc. The system must not impose requirements of additional software such as Microsoft Word, etc.

- Individual user machines will have Windows XP with a minimum of 500M RAM, 1 GHz Pentium 3 configuration. A reasonable upgrade in memory may be requested but system must operate on this hardware. The system must not require Windows Vista and must operate on Windows XP.
- MI SCAO will support printing to Lexmark 4227 and HP 2480 printer types for printing within the application. Individual users (with local courts support) will need to configure their machines to access printers on local network.

6.4 Client Deployment

- MI SCAO currently supports 237 courts locations and about 4500 users. The system is envisioned to support 319 courts and 8000 users. Client installation that requires manual in-person installation will be un-manageable and expensive. The system must not require manual in-person installation.
- MI SCAO does not have ownership or technical control over individual user machines at each of the courts. MI SCAO cannot install software that uses push technology (e.g. Microsoft SMS) from MI SCAO servers to individual user machines. Thus, the system must not rely on such technology. The system must use client installation that is user driven. The installation must be intuitive and simple.

6.5 Server Architecture

- MI SCAO plans to have completely new hardware and software to host the system. The new server hardware and software must support 319 courts locations and 8000 users.

6.6 Scalability

- MI SCAO currently supports 237 court locations and 4500 users. The State of Michigan has 319 court locations and 8000 users. All these courts and users are targeted. At its peak it is expected that 80-90% users will have active session.

Thus, the system must provide scalability so that it can grow with increasing usage without requiring major re-architecture or major re-development.

6.7 Availability

- MI SCAO supports critical business operations for courts across state of Michigan. Un-interrupted operation of the system is very essential. The system must provide un-interrupted operation except in case of scheduled downtimes. The system must use redundant hardware and software to provide high availability.

6.8 Storage

- MI SCAO plans to have SAN based storage available for the system. The system must use this SAN for its storage needs.
- MI SCAO currently uses Tivoli Storage Manager for backup management. The system must use Tivoli Storage Manager, if Tivoli Storage Manager operates on the recommended SAN.
- Based on approximate calculation the total size of only AS/400 specific data across all courts, supported or un-supported by MI SCAO is 400GB.

6.9 Email

- MI SCAO currently uses Symantec Email gateway as SMTP server for all applications that need to send emails. The system at the server must use this SMTP server for any email sending functionality.

6.10 Security

- The system must authenticate all users against Microsoft Active Directory. A new Microsoft Active Directory must be created and hosted at MI SCAO. All users will have account on this directory. User provisioning, authentication will be managed centrally by MI SCAO.

- While identity and authentications are managed centrally at MI SCAO, the system must allow each court administrator to maintain authorizations users within their courts from within the application.
- The system must authorize all users before they access any function or data. Users must have access only to court data that they are assigned to.
- The system must assign each user to multiple court locations. The system must default to a primary court location but allow change to another court location for users belonging to multiple court locations.
- The system must allow modification of system level codes/values by only administrators/operators at MI SCAO. Particular court specific Codes can be modified by authorized users at that court.
- System must address SCAO and JIS activities associated with the long term direction in the conversion of MCAP and implementation of Share Point portal. The intent is that one Active Directory will be established for all members of Michigan's Judiciary.

6.11 Accessibility and Network

- MI SCAO and courts operate over LGNET, JUDNET, SOM and MSC networks. All these networks are intranets and are TCP/IP based networks. The system must operate over these TCP/IP networks.
- The system must be capable of operating over VPN networks.
- MI SCAO currently supports public inquiry application that is accessible by general public over the internet. The system must provide this access over internet, while keeping the intranet environments secure.

6.12 Unsolicited LEIN Printing

- MI SCAO currently prints unsolicited LEIN messages at appropriate courts locations. The system must provide capability to print unsolicited messages to a pre-defined printer at courts locations.

6.13 Reporting

- Individual users of courts will need to generate reports of various types and sizes. The system must provide reporting capabilities that enable individual court users to
 - Select data elements, criteria for sort, inclusion/exclusion, printing/displaying.
 - Allow reports with defined criteria to be saved for later use.
 - Allow reports to belong to a user, but allow sharing with other authorized users. Allow directing request output to report or data file.
 - Allow reports generated by the application to be available upon request and in batch format.
 - Allow automatic report generation by date, day, and recurrence every day, week, or month.
 - Allow on line access to reports.
- The system must support reporting without significant impact to day-to-day functions of the system.

6.14 Forms Printing

- Individual users of courts use legal forms for day to day business operations. There are a total of 157 forms with varying level of complexity. With 1 being most complex, 9% = 1, 5% = 2, 20% = 3, 36% = 4 and 30% = 5. These forms are viewed on screen or are printed. The system must provide forms viewing and printing capability. The system must automatically populate these forms with as much information from database. The system must maintain the format of the forms weather they are viewed on screen or are printed.
- Individual user machines will not have Microsoft Word so the system must rely on software such as PDF Viewer for forms printing. Such components must be integrated in the client application.

6.15 Development

- MI SCAO would like to establish new GUI standards during next phase of the project.
- Automated testing tools must be included in plans for next phase of the project.
- Development Process tools, such as Rational Requisite Pro, Rational ClearCase, etc should be included in plans for next phase.

7. Architecture and Design Principles

The following sections describe architectural and design principles that will be embraced in development of Next Generation system.

7.1 Rational Unified Process

Rational Unified Process software development process will be used for development of new system. This will allow incremental development of application with highest risks being mitigated earlier in the project. RUP help to identify problems early in the process before resources are consumed in significant design and development.

7.2 Component Architectures

Component based design will be basis of architecture of new system. Industry best practices in arena of component architecture will be embraced and implemented.

Component architectures will allow components that are either purchased or developed be reused across systems. It will allow additions to the system that may reuse major components and reduce the cost of enhancements. It will allow pre-tested components to be bought from the open market and reduce overall development costs. It will provide the ability to manage performance through server-based load balancing of component services. It will reduce complexity by

simplifying the face that Business Objects provide to other components in terms of an interface.

7.3 Object Oriented Analysis and Design

Object Oriented Analysis and Design (OOAD) will be used for design of new system. This will provide flexibility for the system to accommodate the business requirements of multiple jurisdictions but within a single system. OOAD provides greater ability to accommodate system changes throughout the development lifecycle.

7.4 XML and Web Services

Where applicable and practical XML and Web Services will be used for interaction between components. This will allow the business to exchange information with a greater number of internal and external systems by maintaining an independence of technology between the systems exchanging information. It will provide a mechanism that enables a cost-effective deployment of business services to a wider community. It will provide the ability for the business application to make use of advances in technology by enabling the speedy replacement of technologies used at different layers of the application (Presentation, Business Logic and Database). It will support the effective decoupling demanded by component based system design.

7.5 N-Tier Architecture

Multi-tier or n-tier architecture will be used to logically group components. This will provide the flexibility to tune applications for performance and deploy each separate executable on a separate processor. It will enable scalability, which provides the ability to keep pace with growing business demand on system usage. It will provide ability to support many user interface technologies (phones, net browsers, web enabled devices).

7.6 Requirements and Use Cases

Concise, clear and accurate Use Cases will be used to document functional requirements. This will allow common understanding between the business users and analyst/designers and clear understanding of requirements in scope.

8. Architecturally Significant Use Cases

Architecturally significant use cases is a only sub-set of total uses cases of application but represents functionality that have following characteristics.

- Critical from business perspective
- Have complex rules, workflow logic
- Have large amount of data
- Different type of function. E.g. Report, Form, etc
- Critical to get it right from user interface perspective
- Have complex data structure
- Have complex infrastructure requirements

Implementing these uses cases in earlier interactions will reduce the technical risk for overall project.

Following are architecturally significant use cases:

Note: This is not a complete list and is not meant to be complete list of use cases. It is not complete scope of the system. The list just represents various types of functionality and different types of complexity that would need to be addressed from architectural perspective.

- Create a Case

- Record an Event
- Adjudicate a Case
- Create a Financial Account
- Create a Cash Code
- Take a Payment
- Run Case Load Report – Provides statistics on new cases and adjudications (Reports).
- Create a Disposition/Sentencing (Adjudication) Form
- Public Inquiry On Cases
- Perform Warrant Validation with MSP
- Perform immediate clearance of Suspensions with SOS.
- Print un-solicited LEIN messages at courts.
- Perform Case update with Prosecutor System.
- Perform Warrant request with Oakland County system (Bindovers)
- Enter Judgement Transactions through LEIN to CHR
- Send Disposition/Sentencing via Abstracts and FAC to SOS via DEG

9. Application Architecture

The Application Architecture describes logical architecture of the Next Generation System. The logical architecture describes responsibilities of architectural components without regard for specific implementation technologies. Specific technologies are described in Technical Architecture section.

The Next Generation System application architecture will be based on n-tier architecture paradigm. In a tiered architecture components providing similar services are logically grouped-to-gather called tiers. These tiers are stacked over each other and represent entire application architecture. Components interact with components in tiers under it or components within the same tier. Cross-cutting tiers such as security, operational management and communications are used by all tiers and represent cross-cutting aspects of the application.

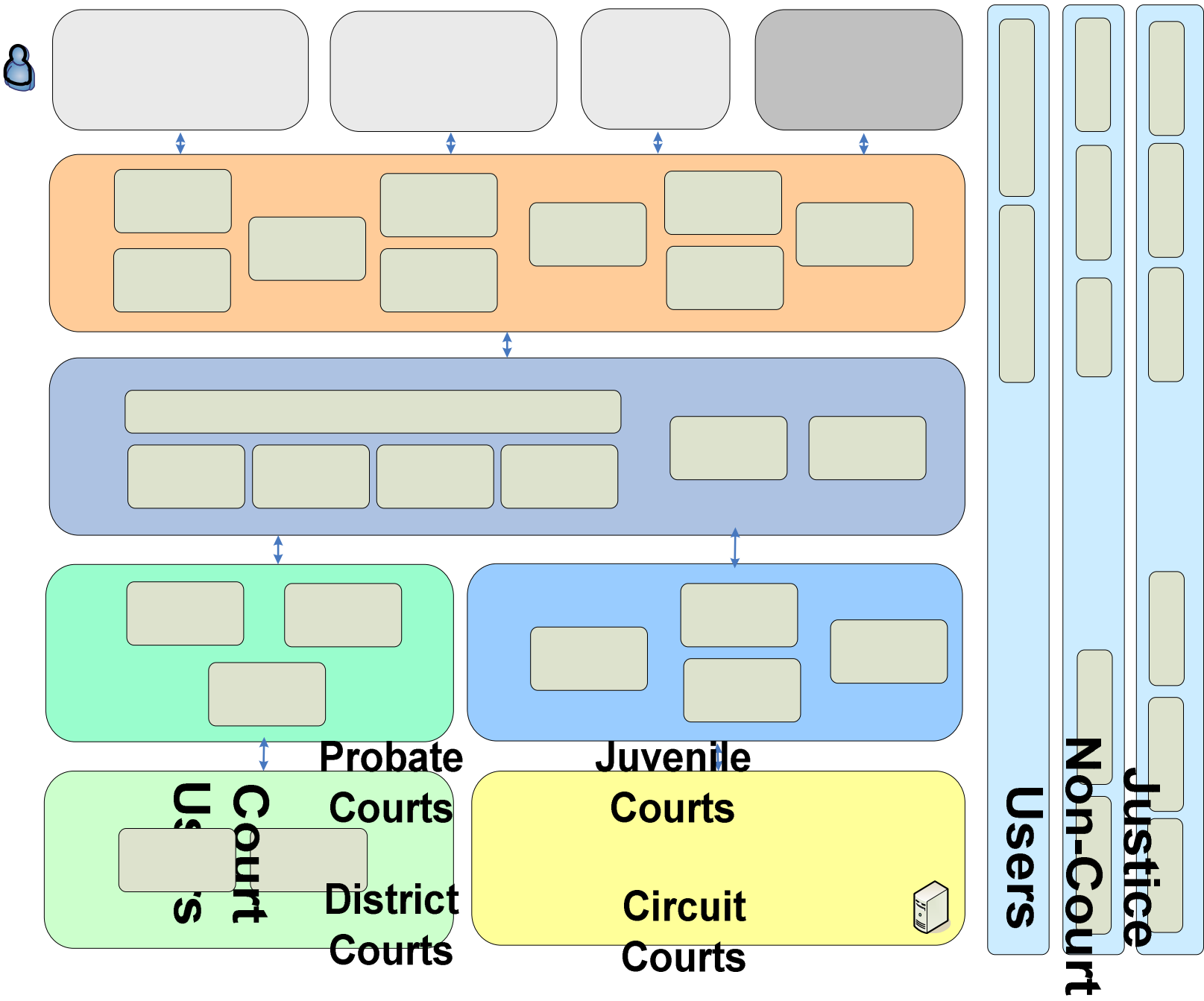
While the tiers itself are purely logical they help to differentiate between kinds of tasks performed by the components, making it easier to design reusability into the solution.

As shown in Figure 7 below, the Next Generation system will consist of following tiers:

- Presentation Services Tier
- Business Services Tier
- Persistence Services Tier
- External Interface Services Tier
- Data Sources Tier
- Security Tier
- Operational Management Tier
- Communications

The users and external systems that Next Generation system will interact with is also shown in Figure 7.

Figure 7 Application Architecture



Following are types of users of Next Generation system:

Table 4 Users

Name	Description
Court Users	Users at each of courts that MI SCAO supports. This includes users at District, Probate, Circuit and Juvenile courts.
Justice Non Court Users	Users that do not belong to courts. These includes law enforcement, Prosecutor office and others.
Public Users	General public that access the solution.
MI SCAO Administrators	MI SCAO Internal administrators and operators that support the system.

The presentation tier contains components that provide users to interact with the application. Following are components in the presentation tier:

Table 5 Presentation Services Layer

Component Name	Description
Business GUI Components	These are graphical user interface (GUI) components that allow viewing, editing and deleting of business information. These are forms can number of GUI framework components that display data, accept and validate user input.
GUI Framework Components	These are core generic GUI components used to build presentation tier. These include components supplied by Microsoft development environment and generic components developed specifically for the Next Generation System. These components are individual controls/elements such as text boxes, combo boxes that display data with appropriate formatting/masking, accept and validate user input.
GUI Navigation Components	These components encapsulate the navigation logic between elements on a screen and navigation logic between screens.

	When user interacts with elements of Business GUI components a software event is raised that calls code in GUI Navigation components. The GUI Navigation components in turn call Entities, Logic or other GUI components to implement desired action and retrieve any necessary data that needs to be displayed.
Business Entities Components	These are business specific domain objects that represent document, events and information. Examples of such components are Case, Party, etc. Business entities and business logic components included in the presentation tier to avoid large number of over the network trips and thereby achieve better response times for the user.
Business Logic Components	These components encapsulate business logic such as relationship between business entities, order in which these entities are created, validation dependencies, etc. Business entities and business logic components included in the presentation tier to avoid large number of over the network trips and thereby achieve better response times for the user.
Forms Print Components	These components provide capability of viewing and printing of official justice forms. Forms will need to be viewed and printed in consistent format and hence there will be need for specialized components that can provide this capability.
Reporting GUI Components	These components provide capability to generate and view reports.
Notification GUI Components	These components represent system functions that require delivery of information outside its core presentation tier and via push mechanism such as email.
Client Installation Components	Before the user can use the application they will need to have application installed on local desktop. The installation of client components will need to be user driven. These components will provide capabilities to enable such installation.

After data is collected from the user by presentation tier components, data represented as business entities will be processed based on business rules, logic and workflow. Business Services layer contains following components that perform these operations:

Table 6 Business Services Layer

Component Name	Description
Business Service Interfaces	All the components in the business tier will be fronted by business service interface. These components will provide consistent interface to all the underlying business entities, business logic, business rules and business workflow components.
Business Entities Components	These are business specific domain objects that represent document, events and information. Examples of such components are Case, Party, etc. Business entities and business logic components are also included in the presentation tier to avoid large number of over the network trips and thereby achieve better response times for the user.
Business Logic Components	These components encapsulate business logic such as relationship between business entities, order in which these entities are created, validation dependencies, etc. Business entities and business logic components are also included in the presentation tier to avoid large number of over the network trips and thereby achieve better response times for the user.
Business Rules Components	These components encapsulate business rules of court case management functions. Encapsulation of rules in separate components allow for re-use across multiple business functions.
Business Workflow Components	These components provide capabilities of long running business flows. These flows may contain a mix of automated and manual tasks
Reporting Logic Components	These components contain business logic associated with reporting provided by presentation tier reporting components.
Forms Logic Components	These components contain business logic associated with forms display and printing components in the presentation tier.

The data processed by components in business tier may need to be stored. The layer providing this service is persistence tier. These components abstract the semantic of underlying data store and data access technology and provide simple programmatic interface for retrieving and performing operations on data.

Table 7 Persistence Services Layer

Component Name	Description
Data Access Components	These components provide consistent access to underlying data structure and relation database engine. Data access components implement a stateless design pattern that separates business processing from data access logic. Each data access component provides methods to Create, Read, Update and Delete (CRUD) operations relating to a specific business entity. These methods are used by business workflows, business logic and business rules components.
Cache Pooling	These components provide temporary in-memory storage capabilities that enable faster access to data.
Data Access Adapters	These components isolate the mechanism and protocols to access the Relational database in storage sources tier. It helps manage database connections, execute commands and in some cases bundle Cache Pooling within them.

The Next Generation system like the current AS/400 applications will need to interact with external systems. External Interface Services layer contains components that encapsulate the logic necessary to initiate and manage operations with external systems. These components help isolate business process implementation from interface implementation in terms of data format and content.

Table 8 External Interface Services Layer

Component Name	Description
Interface Platform	Interface platform or integration platform provides host of services that enable operations with external systems. These include data validation, format and content transformation,

	state management, connection management, etc.
Interface Adapters	Interface adapters are used by interface platform when making connection to variety of interfacing technologies such as file systems, MQSeries, etc.
Interface Proxies	Interface proxies are specially developed components that may be used by Interface platform to perform specialized functions.
Store Forward	Store Forward components allow temporary and queued based storage for inbound and outbound information from Interface tier. Examples of such components are MQSeries, MSMQ, etc

The storage services provide long term storage of information for Next Generation system.

Table 9 Storage Services Layer

Component Name	Description
Relational Database	The Relational Database components allows storage of data in a relational format with primary keys, secondary keys, constraints, indexes, etc
SAN	The SAN provide network based network storage for large amount of data.

Security layer contains components that address authentication, authorization, audit, provisioning, transport and network protocols security cross-cutting aspects of the Next Generation system.

Table 10 Security Layer

Component Name	Description
Authentication	Authentication components provide mechanism to identify the users of the system. This requires users entering credentials (e.g. user name password) in a presentation tier component

	to prove their identity. These credentials are verified at a user credential central store (e.g. Active Directory). All operations performed by the user in various tier is based on this authenticated identity of the user.
Authorization	The authorization components are responsible for identifying permissible actions for each user. It determines who can do what. Such authorizations are stored in a central store and (e.g. Active Directory) and database.
Audit	The audit components create record of user operations on the data. These are enabled for specific business operations to provide a history of who did, what and when on business data.
Provisioning	Provisioning components provides user lifecycle management in the system. Some examples of provisioning include adding a new user, removing a user, disabling a user, updating a user, adding and removing groups and adding and removing users to these groups.
Transport/Network Protocols	In addition to authenticating and authorization a secure transport may be necessary for internet based application. Enabling of such transports does have performance impact. Next Generation System will operate over VPN based intranet environment and so usage of these transports must be evaluated in light of performance impact.

Operational management layer components are concerned with ongoing, day-to-day operations, backup and recovery, deployment, configuration and exception handling of the system.

Table 11 Operational Management Layer

Component Name	Description
Backup Services	Backup services provide backup of data stored long term storage on file systems and relational database and store forward storage services.

Logging Service	Logging service components log relevant events and associated information for the application.
Deployment	Deployment components are responsible for deployment of client software on user desktop. These components are based on pull installs wherein user initiates the installation process.
Exception Handling	Exceptional Handling components encompass catching, throwing, recording and notification of exceptions.
Configuration	Configuration components are concerned with managing consistent and manageable configuration information such as database connection information, external services URI, etc at the servers.

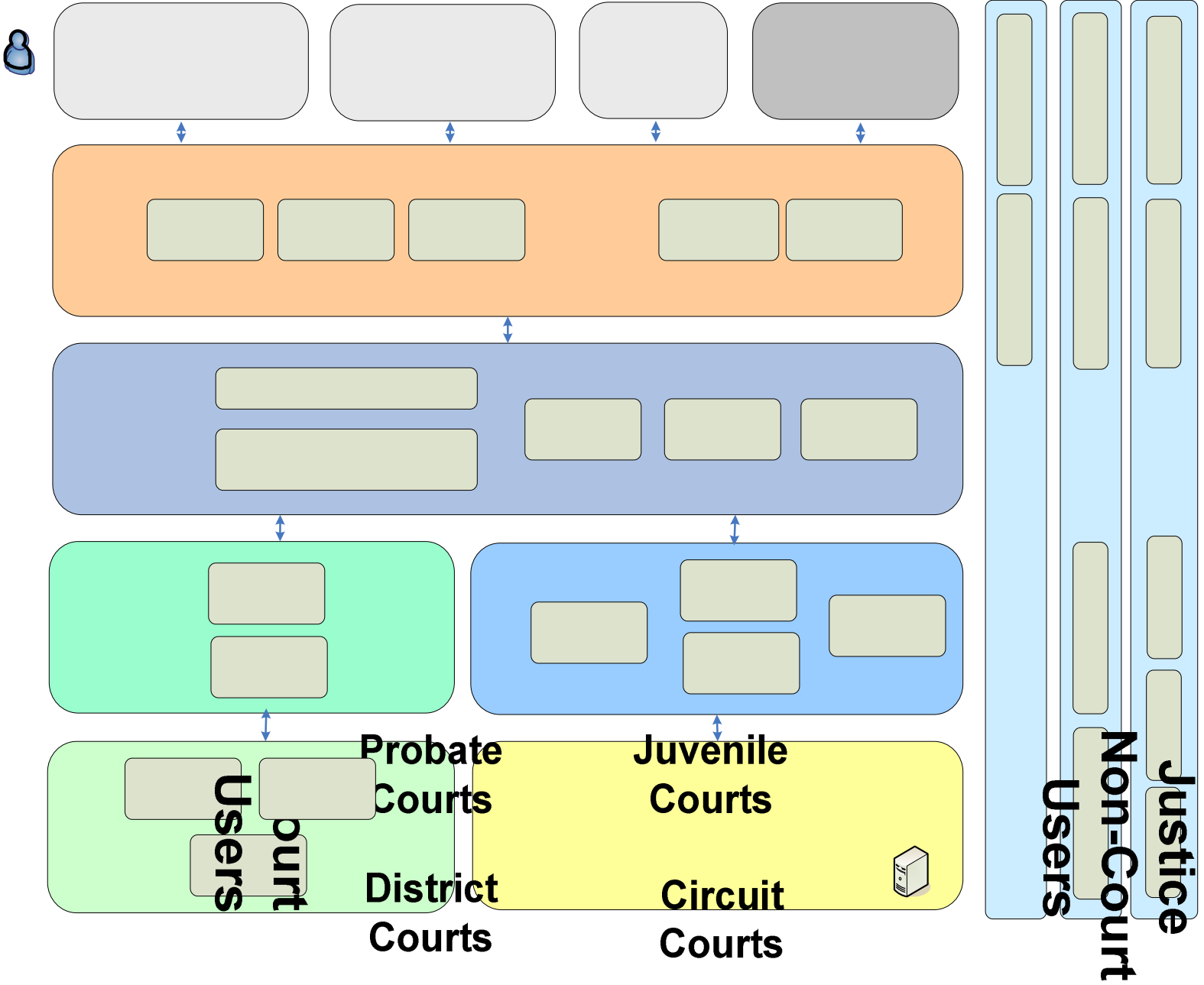
Communication layer consists of components that deal with communication between components and servers and communication with human users.

Table 12 Communications Layer

Component Name	Description
Notification Services	These components provide communication capabilities such as Email for interacting with users outside the application.
Protocols	These components deal with communication between components, servers and between client desktops and servers.

10. Technical Architecture

Figure 8 Technical Architecture



As noted in Application Architecture section, following are types of users of Next Generation system:

Table 13 Users

Name	Description
Court Users	Users at each of courts that MI SCAO supports. This includes users at District, Probate, Circuit and Juvenile courts.
Justice Non Court Users	Users that do not belong to courts. These includes law enforcement, Prosecutor office and others.
Public Users	General public that access the solution.
MI SCAO Administrators	MI SCAO Internal administrators and operators that support the system.

The presentation tier contains components that provide users to interact with the application. Following are components in the presentation tier:

Table 14 Presentation Services Layer

Component Name	Description
WinForms	Next Generation System presentation tier components that deliver core functionality will be using Microsoft WinForms technology. WinForms provides rich and intuitive user experience. WinForms comes bundled with large number of generic and data bound controls such as textbox, combo box, listbox, trees, etc
PDF Viewer	PDF Viewer components will be used to forms display and printing in the presentation tier.
HTML/CSS	A small portion of application covering user driven deployment will be HTML based. Users will need to go secure URL and initiate a install of the client software on desktop. HTML is generated by ASP.NET servers in the business services layer and rendered in internet browser such as Microsoft Internet Explorer.
Crystal Reports/Active Reports/WebFocus	Reporting package needs to be evaluated and identified in next phase of the project. This is recorded in open issues

	section of this document. Some options to consider are Crystal Reports, Active Reports and WebFocus.
Email	Emails will be used for sending notifications from within business process

After data is collected from the user by presentation tier components, data represented as business entities will be processed based on business rules, logic and workflow. Business Services layer contains following components that perform these operations:

Table 15 Business Services Layer

Component Name	Description
Web Services – ASP.NET	ASP.NET web services will serve as front for business components bundled in .NET libraries. ASP.NET comes bundled with IIS and Microsoft enterprise level operating systems.
WebForms - ASP.NET	WinForms components of ASP.NET will be used to create web base user interfaces. The primary use of web based interfaces will be used for authenticating users during user driven client software installation.
.NET Libraries	.NET libraries or Dll will bundle business entities, workflow and rules.
PDF Server Libraries	PDF server libraries aid with dynamic creation of data populated PDF for Forms display and printing.
Reporting Libraries	Reporting package needs to be evaluated and identified in next phase of the project. This is recorded in open issues section of this document.

The data processed by components in business tier may need to be stored. The layer providing this service is persistence tier. These components abstract the semantic of underlying data store and data access technology and provide simple programmatic interface for retrieving and performing operations on data.

Table 16 Persistence Services Layer

Component Name	Description
ADO.NET	ADO.NET is part of core NET framework. It will used to access and modify data stored in SQL Server RDBMS (Relational Database Management System). ADO.NET abstracts access to databases by providing objects such as Connection, Command, DataSets, etc.
SQL Server ADO.NET Drivers	ADO.NET uses database specific adapters called drivers to connect to relational database engine. ADO.NET comes bundled with SQL Server adapter which will be used to access the SQL Server RDBMS.

The Next Generation system like the current AS/400 applications will need to interact with external systems. External Interface Services layer contains components that encapsulate the logic necessary to initiate and manage operations with external systems. These components help isolate business process implementation from interface implementation in terms of data format and content.

Table 17 External Interface Services Layer

Component Name	Description
BizTalk Server	Microsoft BizTalk server enables business integration between disparate systems. BizTalk provides capabilities such as data transformation, activity monitoring, ability to connect to various transports such as FTP, MQSeries, ability to run long running transactions, etc. BizTalk will be used to enable interfaces with external agencies such as MSP, SOS, etc
BizTalk Adapters – MQ Series, FTP, SQL Server, etc	BizTalk relies on adapters to connect to specific transport and servers. MQSeries, FTP and SQL Server adapters will be used to connect to corresponding transports or servers.
.NET Libraries	For functionality that requires coded components, .NET libraries will be created and will be used from within BizTalk.
MQSeries Client	Communication with MSP in future may be on IBM's MQSeries. Communicating over MQSeries requires

	MQSeries Client.
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The storage services provide long term storage of information for Next Generation system.

Table 18 Storage Services Layer

Component Name	Description
SQL Server for OLTP (Online Transaction Processing)	Microsoft SQL Server RDBMS engine will be used for storage of all transaction data.
SQL Server for Reports	A separate instance of SQL Server will be available to provide database for reporting functionality. A replication will be setup between this and OLTP instance of SQL Server described above. While specific Reporting technology has not be selected, this database will be serve as database for the reporting functionality.
SAN	SAN will be used as networked and shared storage environment for file system files and relational database engine.

Security layer contains components that address authentication, authorization, audit, provisioning, transport and network protocols security cross-cutting aspects of the Next Generation system

Table 19 Security Layer

Component Name	Description
Active Directory (AD)	Microsoft Active Directory will be used as a central store for all user's credentials and roles.
SQL Server Audits	Appropriate audits will be enabled in SQL Server to record lifecycle of key pieces of information and transactions.
AD Provisioning	Microsoft Active Directory not only stores user's credentials and roles but also provides for addition, removal and updates

	of user's credentials, related information and groups.
SSL	While core application is expected to operate over intranet environment SSL will be enabled when users (non-public) users need to access web pages used during deployment of desktop client. SSL can be enabled for ongoing desktop client and business components fronted via ASP.NET web services, however all SSL communications incur performance cost on the application.
IPS, Firewalls, etc	The application will use the MSC backbone which uses IPS. Firewalls and other network components will be determined during detailed design in next phase of the project.

Operational management layer components are concerned with ongoing, day-to-day operations, backup and recovery, deployment, configuration and exception handling of the system.

Table 20 Operational Management Layer

Component Name	Description
Windows Server Management	Microsoft Windows server management tools and capabilities will be used for management and monitoring of servers.
Windows Event, PerfMon	Microsoft Window servers comes bundled with event manager and Performance monitoring tools. These tools will be used for monitoring of various events and performance of the application.
Tivoli Storage Manager	MI SCAO current uses Tivoli Storage Manager for backup and restore management of its current infrastructure. Tivoli storage manager will also be used for backups and restoration of new infrastructure.
Configuration – XML	The configuration information used by application will be stored in XML based configuration files.

Table 21 Communications Layer

Component Name	Description
Symantec Email Gateway	MI SCAO currently uses Symantec Email Gateway for any email communication done by applications. Symantec Email Gateway performs email monitoring for viruses, spam, etc. It exposes SMTP service that can be used by client applications to send emails. The new application will use Symantec Email Gateway for all its email functionality.
SOAP, FTP, ETC	SOAP based communication will be used for interactions between desktop client and business services at the servers. FTP, MQSeries, etc will be used for interaction with external agencies and systems.

11. Environments

Note: All environments, servers and configurations are subject to change based on detailed requirements, analysis and design phase of the project.

The size and complexity of MI SCAO Next Generation System requires dedicated environments as the solution is development and deployed and made operational in production.

The solution will be deployed in phased manner in which 8 courts and about 200 users will be initially brought on board during Pilot phase followed by phased increases in number of courts. The initial environments will need to support these 8 court's and 200 users. The environment must however be able to scale with increased courts with additional vertical and horizontal scaling of hardware and software.

In addition, each team member will need their own laptop/desktop with appropriate tools to perform development and test activities.

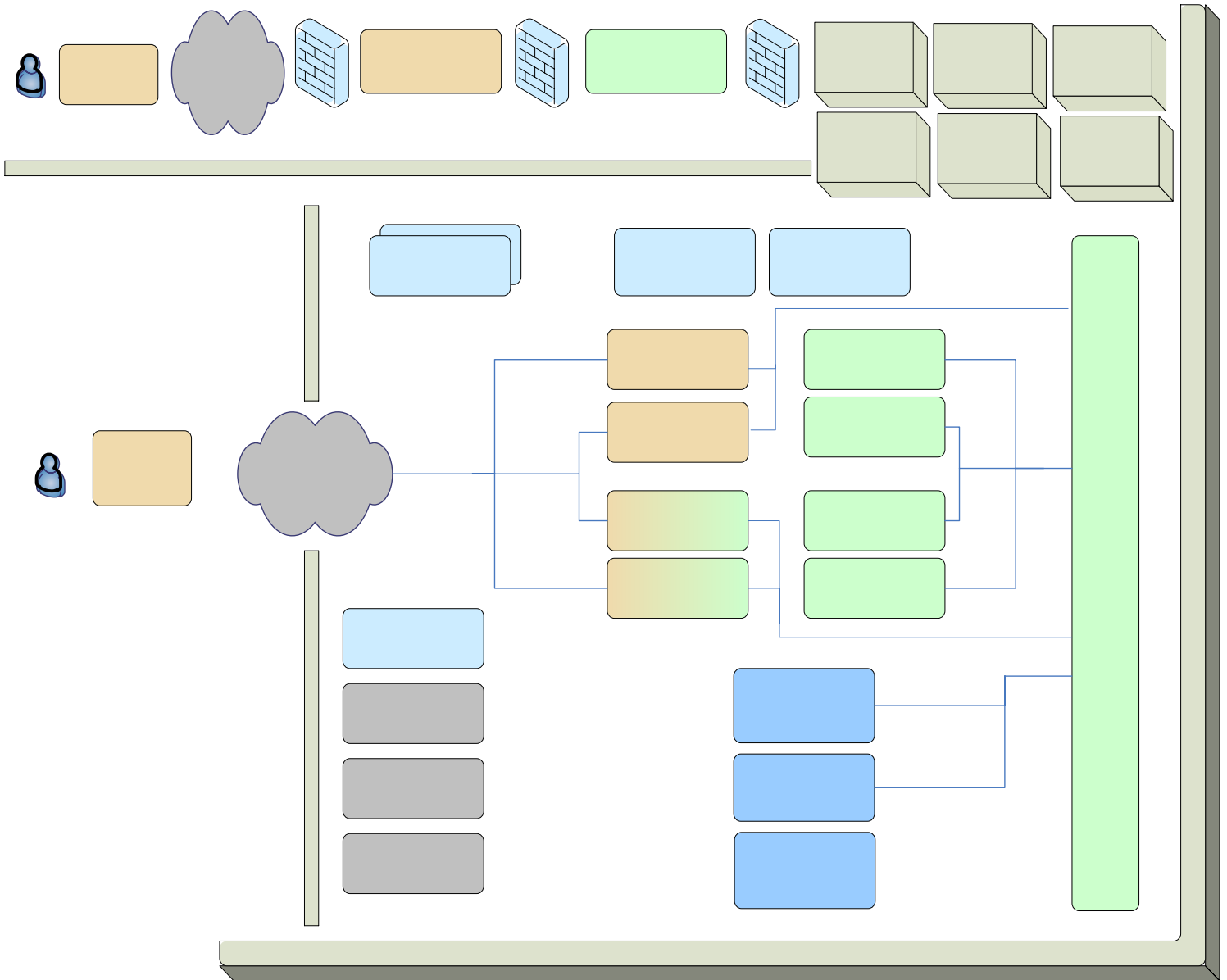
MI SCAO will need following environments:

- **Production:** This environment will be operational environment that uses and creates live data. It is used by courts users including day-to-day operations and reports and by general public to inquiry about cases.

- **Development:** This environment will be repository of all documentation and source code associated with the solution. This includes requirements repositories, design models and documentation, source control repositories, test documentation repositories, etc.
- **Integration:** This environment will be used by development team to consolidate and build code that has been developed on individual developer machines. The development team will then test integrated code in this environment. Preliminary performance test may also be performed in this environment.
- **System Test:** This environment will be used by test team to test the solution. A dedicated test team separate from development test will need to test functional and non-functional (performance, scalability, etc) of the solution.
- **Play-Pen:** This is very small scale environment most likely and single machine that is provided for focus group users get a peek of functionality as it is being developed. Code base in this environment may not have gone through significant system test or integration testing. Such focus groups can provide early feedback on system and can prevent significant reworks.
- **Pre-Production:** This environment will be used to analyze and debug issues founds in production environment. This environment will always contain same versions of code-base as is operational in production environment.
- **Training:** This environment will be used to train users of system.

The following diagram shows Production environments for Pilot Phase of solution deployment: The remaining environments will be along the lines of Production but with smaller hardware configurations.

Figure 9 Deployment Architecture at Pilot Capacity



General Public Access: General public access to case information will be provided by web and data servers that are completely isolated from rest of the environment by

Public Client
IE **Internet**

multiple firewalls. General public may use commonly available internet browsers such as Microsoft Internet Explorer or FireFox to access the information.

Criminal Justice Court & Non-Court Users: Criminal Justice users and courts, Law Enforcement, Prosecution, etc will use client software installed on desktops/laptops to access the application. The network that these users will use has not been decided however possible options are LGNET, JUDNET and VPN/Internet.

All environments will plug-into current MSC backbone.

All Servers will either be Windows 2003 EE or Windows Vista EE depending on stability of Vista at the time of procurement.

Table 22 Deployment at Pilot Capacity

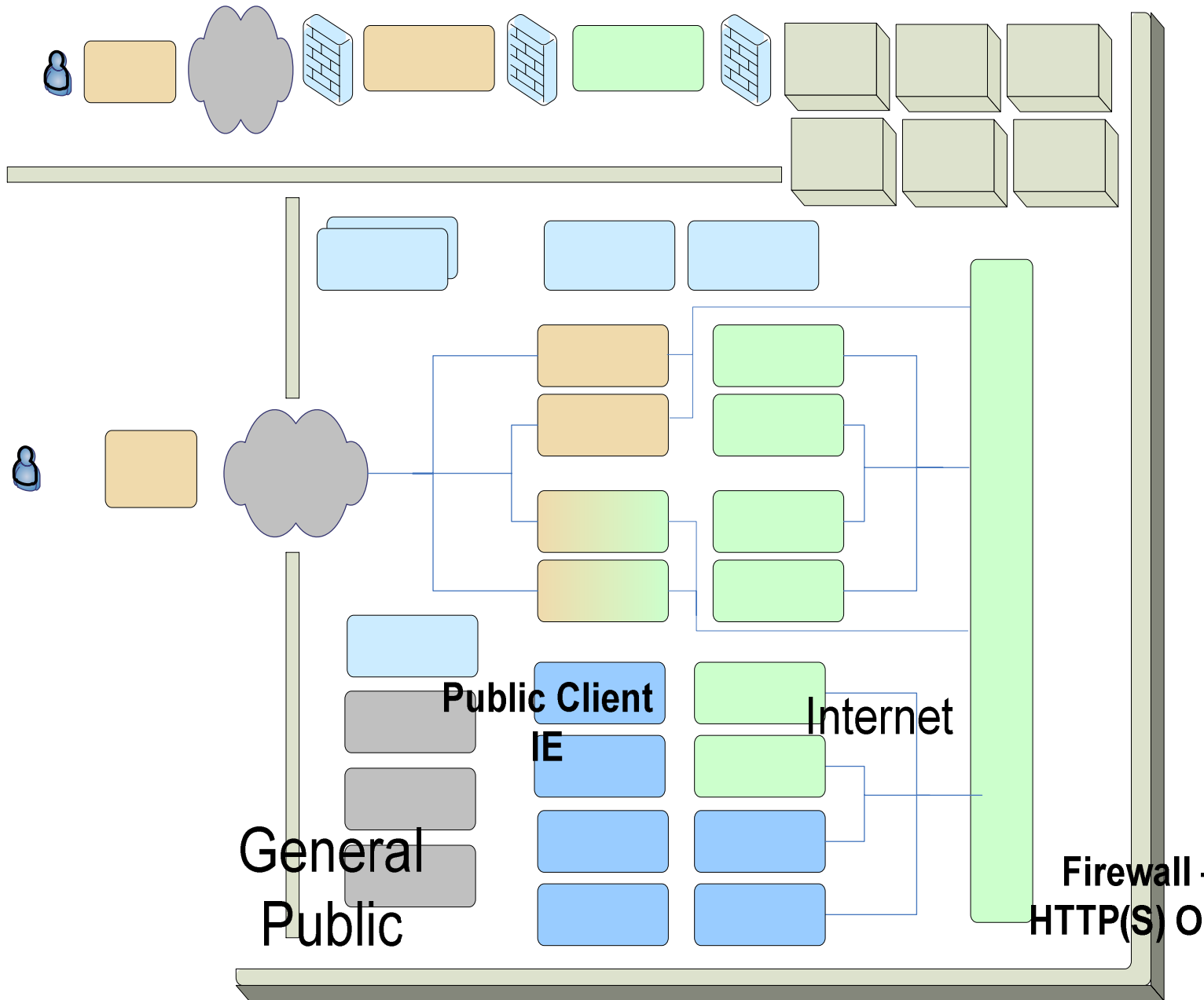
Server(s)	Hardware and Software Configuration
Public Web Server	<p>This server hosts the ASP.NET application that provides access to some case management information to general public</p> <ul style="list-style-type: none"> - Windows Server with 2 dual core CPU - Microsoft Internet Information Server, COM+ and ASP.NET enabled. All of these software comes bundled with server operating system.
Public Data Server	<p>This server hosts the data for needed for public access. Only a small and required subset of data from OLTP will be replicated to this server.</p> <ul style="list-style-type: none"> - Windows Server with 2 dual core CPU - SQL Server database server.
SAN	<p>EMC CX300 storage SAN will be used. CX300s have maximum storage capacity of 27TB. Actual size of SAN will be decided during detailed design phase of project.</p>
VPN Server Cluster	<p>Access by Criminal Justice Court and Non-Court users to core solution will require users to be authenticated against Microsoft Active Directory. To enable this, and if internet is decided as network of choice then VPN servers will be needed for securing the connection.</p>
Report Servers	<p>Reporting functionality hardware and software will be decided</p>

	in next phase of project based on evaluation of reporting COTS.
Report Data Servers	<p>Reporting functionality hardware and software will be decided in next phase of project based on evaluation of reporting COTS. The reporting COTS will however need to operate on Microsoft SQL Server. A replication will be setup between OLTP SQL Server database and Reports Data Server's instance of SQL Server</p> <ul style="list-style-type: none"> - Windows Server - SQL Server
Business Web Servers	<p>These servers will host the application code base for the core functionality accessed by Criminal Justice Court and non-court users. These are active-active with NLB to provide scalability and redundancy.</p> <ul style="list-style-type: none"> - Windows Server with 4 dual core CPU - Web Servers are in Active-Active with Network Load Balancing (NLB) - ASP.NET, COM+
Business Data Servers	<p>These servers will host the database for core business functionality. These servers will be clustered and SQL Server database requires active-passive configuration in clustered mode.</p> <ul style="list-style-type: none"> - Windows Server with 4 dual core CPU - SQL Server - Data Servers are clustered and have data stored on SAN.
BizTalk Servers/MSP-SOS Interfaces	<p>These servers enable communication with external agency. They host integration platform - Microsoft BizTalk server.</p> <ul style="list-style-type: none"> - Windows Server with 4 dual core CPU - BizTalk Enterprise Edition <p>The BizTalk message and meta data store will be placed in SQL Server database on Business Data Servers. For peak capacity environment a dedicated pair of BizTalk Data</p>

	Servers will be made available. MSP/SOS interfacing components operating in conjunction with BizTalk are also placed on BizTalk Servers.
File Exports/Imports Server	This server is dedicated to performing file exports and imports to and from database and BizTalk.
Installation Server	This server is host installation files and application that is used by users to download and install client software.

The production environment at peak capacity is as shown in diagram below:

Figure 10 Deployment Architecture at Peak Capacity



The peak capacity environment is similar to pilot capacity except for following additions:

- Higher number of CPUs are made available on each server

BizTalk Data Servers	<p>BizTalk meta and message data store is placed on these dedicated servers. These data servers stores data metadata required by BizTalk.</p> <ul style="list-style-type: none"> - Windows Server with 4 dual core CPU - SQL Server
MSP/SOS Servers	<p>These servers are dedicated for high volume, high response time communication with MSP and SOS. These servers operate in conjunction with BizTalk.</p> <ul style="list-style-type: none"> - Windows Server with 4 dual core CPU
Other Interfaces Server	<p>These servers are dedicated for transactions with agencies that are found to be expensive from CPU cycles perspective.</p>

12. Data Migration

Data Migration converts data from an existing legacy system to Next Generation system database. Since the Next Generation system is moving to a centralized database, all data from courts moving to the Next Generation system, will need to be converted to this centralized database.

As mentioned earlier there are 4 primary AS/400 based systems supported by MI SCAO

- TCS
- CCS
- PCS
- DCS

CCS and PCS is an older version of courts management system. TCS is more recent version. Both these systems are AS/400 based. MI SCAO has been migrating CCS and PCS to TCS over past few years. However, not all courts with CCS and PCS have been migrated to TCS, secondly, none of the DCS courts have been migrated to TCS.

In addition, Data migration will need to account for the conversion of data from systems not currently supported by MI SCAO.

Following will be main aspects of Data Migration:

- **Data Mapping:** Data mapping exercise will identify particular data elements that need to be migrated from legacy data structure to Next Generation system database schema. It will also establish transformation requirements to adapt them to the new system.
- **Data Cleansing:** The quality of the data within the existing systems plays a major part in the success of the data migration and the subsequent operation of the new system. In order to ensure data and operational integrity of the system, some data cleansing may need to be performed. The amount of data cleansing will be assessed by Data migration team on a case by case basis.
- **Data Transformation:** Data transformation converts data from source system's format and type to destination system's format and type. The fields that need to undergo data transformation will be assessed by Data migration team on case by case basis.
- **Data Loading:** Data loading physically transfers data from source system to destination system at scheduled time. Such loading would occur several times during testing before final migration for a court is done for production switchover.
- **Testing:** Ongoing and iterative testing will be needed to ensure quality of migrated data. The tests are broadly classified into 2 main types:
 - **Application Testing:** Application testing on migrated data will be performed to ensure appropriate usage of migrated data by the application. This application testing will be performed on migrated data during unit testing, system testing, integration testing, performance testing and user acceptance testing. The migrated data will also be available on PlayPen environments for user feedback.
 - **Reconciliation:** Reconciliation verifies the quality of migrated data by verifying the data directly without using the application. At a minimum, the following reconciliation will be performed:
 - Number of rows per table
 - Where financial data is involved a total per record type plus a grand total will be compared. If debits and credits are involved in the process then sub-totals of these will be produced and compared to avoid compensating errors cancelling out.

- Existing standard reports will be run in both the old and new systems and the outputs compared
- Summary queries will be run against the source and target databases to produce record totals and the results will be compared

Following are main constraints for Data Migration effort:

- Once court is operationally moved to Next Generation System with migrated data there will not be any data synchronization between Next Generation and legacy systems
- A blended team of Unisys and MI SCAO will be responsible for Data Migration effort
- Data Archiving will not be done and entire dataset from legacy system for a court will be moved to Next Generation database
- There are not security and privacy restrictions around access to snapshot of production data by development and data migration team.
- Data Migration should be conducted in following manner:
 - TCS to Next Generation
 - DCS to Next Generation.

Courts that use CCS and PCS will first be migrated to TCS and then migrated to Next Generation system. This is because MI SCAO over the years has made significant investment migrating CCS and PCS to TCS and TCS has stable data structure and better data quality. Next Generation System can benefit by focusing on TCS to Next Generation System transfer and not spending time and effort in migrating CCS and PCS.

- Non-JIS courts to Next Generation

Migration of Non-JIS Courts to Next Generation will need to be done on individual basis.

- Data Migration tools such as SQL Server DTS, Informatica, etc that can help with migration effort will be evaluated in next phase of the project.
- Involvement of Users via focus groups is critical for success of Data Migration effort and so these users will be kept involved during all phases of Data Migration effort.

13. Open Issues for Next Phase

- Reporting Solution: The reporting solution will need to meet the requirements of the. A Reporting COTS package will need to be identified that can help meet these requirements. There are several reports COTS options including ActiveReports, Crystal Reports, WebFocus, etc. A detailed evaluation of reporting COTS package will need to be conducted to identify the right COTS package.
- Network: Each of the courts will need to connect to MI SCAO. These users at these courts will need to be authenticated at centrally located Active Directory servers at MI SCAO. Currently there are three options LGNET, JUGNET and Internet. Each of these options will need to be evaluated. Based on choice of network hardware and software for VPN servers will need to be decided.
- Authentication: MI SCAO has Microsoft SharePoint portal based solution in works, MCAP is reporting solution based on Microsoft Platform. The authentication of users against these solutions and the Next Generation system will need to be researched so there is a consistent approach to authenticating users.
- Database Migration/Sync: Data from current AS/400 will need to be migrated and in some cases kept in sync with database of the Next Generation System. Database migration and synchronization tools will need to be evaluated. Database Migration and synchronization plans and process will also need to be established in next phase.
- Printing: Multi-part printing which is needed for Receipts will need to be addressed. Secondly printing on courts printers over selected network will also need to be addressed early in next phase of the project.
- .NET Version for Client Software: The version of .NET for client software installed on user desktops needs to be decided.

14. Acronyms

Table 23 Acronyms

Name, Acronyms	Description
MI	Michigan
SCAO	Supreme Court Administrative Office
MSP	Michigan State Police
LEIN	Law Enforcement Information Network
SOS	Secretary Of State
PACC/PAAM	Prosecuting Attorney's Coordinating Council / Prosecuting Attorneys Association of Michigan
SOM	State of Michigan Network
MSC	Michigan Supreme Court Network
TCS	Trial Court System
PCS	Probate Court System
CCS	Circuit Court System
DCS	District Court System
FTP	File Transfer Protocol
SOAP	Simple Object Access Protocol
COTS	Commercial, off-the-shelf
OLTP	Online Transaction Processing
SAN	Storage Area Network
VPN	Virtual Private Network

SSL	Secure Socket Layer
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15. Appendix A – LEIN/SOS Manual



C:\Documents and Settings\ShahGA\Des

16. Appendix B – Electronic Warrant Validation File – Sample



C:\Documents and Settings\ShahGA\Des

WarrantsLayout

Sample warrant file will be provided on request to Greg C.

Note: Please use Word pad or Microsoft Word to view above file.

17. Appendix C – Statute Bar File – Sample



C:\Documents and Settings\ShahGA\Des

Sample File



C:\Documents and Settings\ShahGA\Des

Format File

18. Appendix D – State Bar File – Sample



C:\Documents and Settings\ShahGA\Des

Sample Data



C:\Documents and Settings\ShahGA\Des

Format

19. Appendix E – Judicial Data Warehouse File – Sample



C:\Documents and Settings\ShahGA\Des

20. Appendix F – PACC/PAMM files – Sample

20.1 Details of the Send Process (District) - Overview:

The procedure is executed to extract new criminal cases from the DCS Casemasp file. The case must contain a CTN (not a TCN) and must have been entered on the requested date. For every case that is found, a new “CS” (case) record is written to the PROS file. The DCS system has internal procedures that write disposition records (“DS”) to the PROS file. The procedure then extracts all “CS” records and all “DS” (dispo) records from the PROS file and writes them to the RTVPROCTN file which the PA’s computer system will automatically pick up each night.

- CCIDCSSNDC is the command used to run the procedure. It has Parms: Extract date(greg full), Extract flag, Build Flag.
- CCIDCSSNDP is the command processing program for the procedure. It has Parms: Extract date(greg full), Extract flag, Build Flag.

- TCRCASASN is passed only the Extract date(greg full). This program is only run if the Extract flag is entered as a "Y". Program uses files CASEMASP, COURTFIL and PROS. It loops thru Case master looking for any cases with the initiated date equal to the extract date. And the case needs a CTN (not a TCN). The court's ORI and the prosecutor's ORI is retrieved out of the COURTFIL. Then a "CS" record is formatted and written to the PROS file.
- CCIDCSSND is passed only the Extract date(greg full). This program is only run if the Build flag is entered as a "Y". Program uses files PROS and RTVPROCTN. It loops thru the PROS file and finds any "CS" or "DS" record with the transaction date matching the extract date. The dispo event code and the dispo code are converted to the Prosecutor's code using a conversion table coded within the program. A 06 Add event is created for each "CS" record and a 08 Dispo record is created for each "DS" record found. The 06 and 08 records are written to the RTVPROCTN file.
- The program CLCCCHKDD is used within the DCS process for determining if a dispo record is eligible based on the dispo date and the DCS PI install date (saved in the PI data area).

SETUP:

1. Job scheduled entry for daily run of CCIDCSSNDC. Use OSMPROS JOB which contains the proper library list. (Use the JISSNDDCS job on Livingston County's job scheduler as an example).

20.2 Prosecutor to Circuit Court (February 21, 2007)

Record Type - Identifies the type of record by a number

02-CASE Record

03-Defendant Record

04-Charge

02-Case Record	FIELD SIZE	
Record Type	Char(2)	Type "02"

Record Action	Char(1)	A=Add – New Sends, M=Modify – Resends DO NOT USE
CTN	Char(12)	Criminal Tracking Number.
SID	Char(9)	
Case Type	Char(2)	FY = Felony, MD=Misdemeanor, HM=High Misdem.
Requesting Agency	Char(8)	Agency codes(?)
Arresting Officer	Char(30)	
Complaint Nbr	Char(14)	
Complainant	Char(30)	
Crime Date	Char(20)	MM/DD/YYYY
Location	Char(56)	Location code (20) Location field (36)
Date Warr Gen	Char(8)	MMDDYYYY
Nbr of Defendants	Char(2)	
Filler	Char(7)	Wayne County only
PA ORI State	Char(2)	Prosecuting Attorney's ORI State
PA ORI	Char(7)	Prosecuting Attorney's ORI
Court ORI St	Char(2)	Court's ORI State
Court ORI	Char(7)	Court's ORI
Filler	Char(81)	
TOTAL	Char(300)	

03-DEFENDANT Record		
Record Type	Char(2)	Type "03"
Record Action	Char(1)	NOT USED
CTN	Char(12)	Criminal Tracking Number.
SID	Char(9)	SID
Prosecutor	Char(5)	Prosecutor P#
Name	Char(30)	L,F,M Name of Def
Address	Char(30)	
City	Char(16)	
State	Char(2)	
Zip	Char(10)	
Habitual Notice	Char(20)	Habitual Notice Pacc Code
Motor Veh or Advisory Notice	Char(20)	Advisory Notice Pacc Code
Sex	Char(1)	F/M/U(unknown)
DOB	Char(8)	MMDDYYYY
Race	Char(2)	
Date of Prelim	Char(8)	MMDDYYYY
Prelim Type	Char(3)	Hld OR wav
Date of DC Arraign	Char(8)	MMDDYYYY
Lower Court	Char(4)	DC Nbr
Lower Court County	Char(2)	Cty Nbr
Lower Court Case Nbr	Char(10)	DC#
DLN	Char(13)	

DLN-State	Char(2)	
LPD	Char(6)	Local Police Defn ID Nbr
Defn Special Code	Char(2)	Wayne only
Defn TCN	Char(11)	Livescan Print Card Tracking Nbr
Defn SSN	Char(25)	
ExtFirstName	Char(25)	Extended First Name
ExtLastName	Char(25)	Extended Last Name
Filler	Char(4)	
Total	Char(300)	

20.3 Circuit Court to Prosecutor (February 21, 2007)

Record Type - Identifies the type of record by a number

06-Event (Add Event is a Case Number Add)

07-Bond

08-Charge

09-Sentence

81-Habitual/Advisory

91-Sentence Notes

06-ADD Event Record	FIELD NAME	ACTUAL FIELD SIZE	USED SIZE	The ADD record tells the Prosecutor System that the case has been added in Circuit Court. Add the new Circuit Court Case Number, Judge and change the case over from District
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				Court to Circuit Court.
FIELD1	Record Type	Char(2)	Char(2)	Type "06"
FIELD2	Record Action	Char(1)	Char(1)	A=Add – New Sends, M=Modify – Resends DO NOT USE
FIELD3	CTN	Char(12)	Char(12)	Criminal Tracking Number.
FIELD4	SID	Char(10)	Char(10)	SID's returned from Circuit Court are handled as verified SID's updating Defn SID & Verified Flag.
FIELD5	ADD	Char(3)	Char(3)	Value of "ADD"
FIELD6	Circuit Court Case#	Char(20)	Char(14)	Circuit Court Case Number
FIELD7	Event Date	Char(10)	Char(8)	Event Date (MMDDYYYY)
FIELD8	Event Time	Char(70)	Char(5)	Event Time (HH:MM)
FIELD9	Action Code	Char(7)	Char(5)	Circuit Court Result Code – A conversion Table is defined on the Circuit Court side to convert their code to ours. If removing an Event, this should be 'CAN'.
FIELD10	Judge-Bar#	Char(7)	Char(5)	Bar Number Only
FIELD11	Def Atty	Char(10)	Char(5)	Defendant's Attorney P#
FIELD12	Location	Char(16)	Char(1)	Location – Not used as of 06/2004
FIELD13	Filler13	Char(64)	Char(64)	Spaces

TOTAL		Char(300)		
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07-BOND Record	FIELD NAME	ACTUAL FIELD SIZE	USED SIZE	When a Bond Posted event is encountered, this data is sent.
FIELD1	Record Type	Char(2)	Char(2)	Type "07"
FIELD2	Record Action	Char(1)	Char(1)	A=Add – New Sends, M=Modify – Resends DO NOT USE
FIELD3	CTN	Char(12)	Char(12)	Criminal Tracking Number.
FIELD4	SID	Char(10)	Char(10)	SID
FIELD5	Status	Char(3)	Char(2)	Bond Type – A conversion is defined in the program.
FIELD6	Bond	Char(20)	Char(10)	Bond Amount
FIELD7	Filler7	Char(10)	Char(10)	
FIELD8	Filler8	Char(70)	Char(70)	
FIELD9	Filler9	Char(7)	Char(7)	
FIELD10	Filler10	Char(7)	Char(7)	
FIELD11	Filler11	Char(10)	Char(10)	
FIELD12	Filler12	Char(16)	Char(16)	
FIELD13	Filler13	Char(30)	Char(30)	
FIELD14	Filler14	Char(20)	Char(20)	
FIELD15	Filler15	Char(30)	Char(30)	
TOTAL		Char(300)		

08-CHARGE Record	FIELD NAME	ACTUAL FIELD SIZE	USED SIZE	Can have up to 10 Charges on 08 record
FIELD1	Record Type	Char(2)	Char(2)	Type "08"
FIELD2	Record Action	Char(1)	Char(1)	A=Add – New Sends, M=Modify – Resends DO NOT USE
FIELD3	CTN	Char(12)	Char(12)	Criminal Tracking Number
FIELD4	SID	Char(10)	Char(10)	SID
FIELD5	Count	Char(3)	Char(3)	Prosecutor Count Number
FIELD6	AuthCharge	Char(20)	Char(20)	PACC Code
FIELD7	Auth A/C/S	Char(10)	Char(3)	A = Attempt C = Conspired S = Solicited
FIELD8	FinalCharge	Char(70)	Char(20)	PACC Code
FIELD9	Final A/C/S	Char(7)	Char(3)	A = Attempt C = Conspired S = Solicited
FIELD10	Dispo	Char(7)	Char(5)	Disposition on charge – A conversion table is defined to convert code to Pacc/Paam's code.
FIELD11	Disp Date	Char(10)	Char(8)	MMDDYYYY Date format Disposition Date
FIELD12	Disp Event	Char(16)	Char(3)	Disposition Event Code. A Conversion table is defined to convert the code to Pacc/Paam's code.
FIELD13	Court Count	Char(30)	Char(2)	Circuit Court Count
FIELD14	Notice	Char(20)	Char(20)	Notice
FIELD15	Filler15	Char(30)	Char(30)	
TOTAL		Char(300)		

81-Habitual/ Advisory Record	FIELD NAME	ACTUAL FIELD SIZE	USED SIZE	This record is only used for Habitual or Advisory Notices.
FIELD1	Record Type	Char(2)	Char(2)	Type "81"
FIELD2	Record Action	Char(1)	Char(1)	A=Add – New Sends, M=Modify – Resends DO NOT USE
FIELD3	CTN	Char(12)	Char(12)	Criminal Tracking Number No dashes.
FIELD4	SID	Char(10)	Char(10)	SID
FIELD5	Filler5	Char(3)	Char(3)	
FIELD6	Habitual Notice	Char(20)	Char(20)	Habitual PACC Code; Only 3 Habitual Notices: 769/10 769/11 769/12
FIELD7	Filler7	Char(10)	Char(10)	
FIELD8	Advisory Notice	Char(70)	Char(20)	Advisory or Motor Vehicle Notice PACC Codes,
FIELD9	Filler9	Char(7)	Char(7)	
FIELD10	Filler10	Char(7)	Char(7)	
FIELD11	Filler11	Char(10)	Char(10)	
FIELD12	Filler12	Char(16)	Char(16)	
FIELD13	Filler13	Char(30)	Char(30)	
FIELD14	Filler14	Char(20)	Char(20)	
FIELD15	Filler15	Char(30)	Char(30)	

TOTAL		Char(300)		
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09- SENTENCE Record	FIELD NAME	ACTUAL FIELD SIZE	USED SIZE	Sentence Record. MUST HAVE Count to match Charge or "CAS" and Sentence type, Date, length or Amount
FIELD1	Record Type	Char(2)	Char(2)	Type "09"
FIELD2	Record Action	Char(1)	Char(1)	A=Add – New Sends, M=Modify – Resends DO NOT USE
FIELD3	CTN	Char(12)	Char(12)	Criminal Tracking Number.
FIELD4	SID	Char(10)	Char(10)	SID
FIELD5	Count	Char(3)	Char(3)	Count Nbr or "CAS" if sentence is CASE specific.
FIELD6	Type	Char(20)	Char(2)	Sentence Type. Conversion table within program converts J or P, probation, costs, fines, etc.
FIELD7	Date	Char(10)	Char(8)	Date of Sentence
FIELD8	Length of Sentence in DAYS	Char(70)	Char(7)	Either Length of Days, Months, Years or Amount must accompany Sentence Type.
FIELD9	Length of Sentence in MONTHS	Char(7)	Char(7)	Either Length of Days, Months, Years or Amount must accompany Sentence Type.
FIELD10	Length of Sentence in YEARS	Char(7)	Char(7)	Either Length of Days, Months, Years or Amount must accompany Sentence Type.
FIELD11	Sentence Credit	Char(10)	Char(3)	Credit in DAYS of time served in jail by defendant.
FIELD12	Sentence Amt	Char(16)	Char(16)	Either Length of Days, Months, Years or Amount must accompany Sentence Type. 16 numeric includes 2 decimals
FIELD13	Term CR/CS/LI	Char(30)	Char(2)	Indicates if the Sentence is CR = Concurrent CS = Consecutive LI = Life

FIELD14	Filler14	Char(20)	Char(20)	
FIELD15	Filler15	Char(30)	Char(30)	
TOTAL		Char(300)		

91- SENTENCE NOTES Record	FIELD NAME	ACTUAL FIELD SIZE	USED SIZE	Sentence Notes are used to describe a sentence given by the courts that cannot be covered by a Sentence Type Code.
FIELD1	Record Type	Char(2)	Char(2)	Type "91"
FIELD2	Record Action	Char(1)	Char(1)	A=Add – New Sends, M=Modify – Resends DO NOT USE
FIELD3	CTN	Char(12)	Char(12)	Criminal Tracking Number.
FIELD4	SID	Char(10)	Char(10)	SID
FIELD5	Count	Char(3)	Char(3)	Count Nbr or "CAS"
FIELD6	Type	Char(20)	Char(2)	Sentence Type must match 09 or 10 Sentence Record. This record is for additional notes to that Sentence.
FIELD7	Note Number	Char(10)	Char(2)	Sequential number.
FIELD8	Note	Char(70)	Char(70)	Comments
FIELD9	Filler9	Char(7)	Char(7)	
FIELD10	Filler10	Char(7)	Char(7)	
FIELD11	Filler11	Char(10)	Char(10)	
FIELD12	Filler12	Char(16)	Char(16)	
FIELD13	Filler13	Char(30)	Char(30)	
FIELD14	Filler14	Char(20)	Char(20)	
FIELD15	Filler15	Char(30)	Char(30)	
TOTAL		Char(300)		

04-CHARGE Record		There can be 5 Charges on an 04 Rcd
Record Type	Char(2)	Type "04"
Record Action	Char(1)	A=Add – New Sends, M=Modify – Resends DO NOT USE
CTN	Char(12)	Criminal Tracking Number
SID	Char(9)	SID
CourtCount1	Char(2)	Court Count Number
Count1	Char(3)	Prosecutor Count
Charge1	Char(20)	Final Charge Pacc Code
Charge A/C/S 1	Char(3)	Attempted/Conspiracy/Soliciting
Notice1	Char(20)	Final Notice Pacc Code
Same 5 fields repeat	Char(192)	Charge #2, #3, #4, #5
Filler	Char(36)	
TOTAL	Char(300)	

21. Appendix G – Oakland Bindover Transaction Formats - Sample



C:\Documents and Settings\ShahGA\Des

Page numbers for the 4 formats that we use are as follows:

1. Page 30,31 describes the header format (first 300 bytes of total 2500 bytes). Transaction type WR uses only header format.
2. Transaction type WS - Page 32-34
3. Transaction type DS - Page 35-39
4. Transaction type ES - Page 41

Please note that the total length in the document is mentioned as 4000 bytes. we reduced this to 2500. First 300 bytes are for the header.



C:\Documents and Settings\ShahGA\Des

Sample Data

22. Appendix H – JIS Interface: District Court to Circuit Court (February 21, 2007)

Case Header Record		
DCS-CTN	Char(12)	Criminal Tracking Number.
DCS-FLAG	Char(1)	
DCS-CASETYP	Char(2)	A=Add – New Sends, M=Modify – Resends DO NOT USE
DCS-JUDGE	Nbr(6.0)	NOT USED 05/99



DCS-FILEDT	Nbr(7.0)	NOT USED 05/99
DCS-ATTY	Nbr(6.0)	Attorney P#
DCS-ATTYTYP	Char(1)	Attorney Type (Appointed or Retained)
DCS-NAME	Char(37)	
DCS-STREET	Char(30)	
DCS-CITY	Char(16)	
DCS-STATE	Char(2)	
DCS-ZIP	Char(6)	
DCS-PROSEC	Nbr(6.0)	Prosecutor P#
DCS-SEX	Char(1)	
DCS-DOB	Nbr(7.0)	Def Date of birth (Julian date)
DCS-RACE	Char(1)	
DCS-ARGNDT	Nbr(7.0)	Arraignment Date (Julian)
DCS-LWRCT	Char(4)	Lower Court number
DCS-LWRCTCTY	Char(2)	Lower Court County number
DCS-LWRCTCSE	Char(10)	Lower Court Case number
DCS-DLN	Char(13)	
DCS-DLNST	Char(2)	
DCS-SID	Char(9)	
DCS-VEH-PAPER-PLT	Char(1)	
DCS-VEH-PLATE	Char(7)	
DCS-VEH-YEAR	Char(4)	
DCS-VEH-MAKE	Char(4)	

DCS-VEH-VIN	Char(17)	
DCS-PIN	Char(10)	
DCS0OFFSDT	Nbr(7.0)	Offence Date (Julian)
****Header Size***	238	
CHARGE INFO		
DCS-CHGOCC	Char(2)	
DCS-CHARGE-DATA		Occurs 50 times
DCS-PROSCNT	Char(3)	Prosecutor Count
DCS-CUR-CHG	Char(20)	Current Charge Pacc Code
DCS-CHG-ACS	Char(3)	Current Charge A/C/S
****Charge Size***	1302	
TOTAL	Char(1540)	

23. Appendix I – JMS Bindovers

- The JMS District Court application will send a group of records to the JIS Circuit court system. This set of records relates to a specific CTN and is placed in a new member within the XCS file BINDOVER. The member naming scheme may be helpful.

X99999999 where X = “B” for Bindover or “I” for Information

99999999 = Case Key or major piece of the CTN number

ex: 05001530, where CTN would be 19-05-001530-01

- A trigger program (CCIBOTRIG) is attached to the BINDOVER file and it fires after records are added to the file. The trigger program looks at data area CCIBOADEDED and if position 1 is blank, then it puts an “X” in position 1 and submits program

CCICONVCL to run in batch. When program CCICONVCL finishes, it clears out position 1 of the data area. If position 1 is NOT blank, then it does NOT submit program CCICONVCL. The assumption is that the program was just submitted for another CTN.

- The CCICONVCL program is logically divided into the following pieces:
 - Program CCICONV is run to move the CTN information from BINDOVER into CPRODEF and CPROCHG (defendant and charge records). These records can be used by the court clerks when initiating a new criminal case within the CCS application.
 - Program CCIRBDO2 is executed to make sure there are matching charge records for the CTN. If no charge records are found, the last two digits of the CTN are changed to “NC” (no charge) in the CPRODEF file. This is done because the CCSCAS program is expecting charge records with the defendant data. If the CTN has been changed, then when the court clerk tries to pull that CTN data into a new case, the CTN will not be found. Typically this won’t happen coming from the District court so this is more of a safe guard.
 - Position #1 of the CCIBOADEDED data area is now changed back to a blank allowing the trigger program to execute the same process again when another CTN is received from JMS.

Prosecutor Interface Objects

PIWORK –	pf	Work file to receive CTN information from PA
CCIWRKTRIG –	clp	Trigger program
CCIWKADDED –	dtaara	Data area containing control info for Trigger pgm
CCIWRKCONV –	cbl	Processing program for the receive process.
CCIORI –	cbl	Retrieve court type from an ORI number
CCIBLDDCR -	cbl	Process the CTN info and build a DCS “WS” rcd
CCIDLTCTN -	cbl	Delete the old ‘WS’ rcds for a CTN, before adding
CINTCTL -	pf	Circuit Interface Control file
CCIRBDO -	cbl	Process the CTN info and build CCS Def & Chrg rcds
CCIRBDO2 -	cbl	Check for Def w/o Chrg records, chg CTN to “NC”
CCIDBDO -	cbl	Remove Def and Chrg records older than 180 days.
CLCCIBSPL -	clp	CCS Menu option to run the Retrieve
CLCCIBRUN -	clp	CCS Menu option to re-run the Retrieve
APROSFIL -	pf	Work file (copy of RTVPROCTN)
RTVPROCTN -	pf	File retrieved by the PA's office contains daily mbrs
CLCCIERUN -	clp	Process to run daily extract of CCS data
CLCCIEVT -	clp	Process to run daily extract of CCS data
CCIEVT -	cbl	Daily CCS extract program
CCIDCSSNDC -	cmd	Command used to run the procedure
CCIDCSSNDP -	clp	Command Processing program used to run the procedure
TCRCASASN -	cbl	Extract new cases from DCS and build a CS rcd in PROS.
CCIDCSSND -	cbl	Build New case rcds and dispo rcds in RTVPROCTN file.
CLCCICHKDD -	clp	Pgm to check DCS dispo date against DCS Install date
PROS -	pf	DCS file that also contains Prosecutor interface records
PIDCSSNDSF -	savf	Save file of objects used in the DCS send to PA

BINDOVER -	pf	Work file to receive CTN information from JMS
CCIBOTRIG -	clp	Trigger program
CCIBOADEDED –	dtaara	Data area containing control info for Trigger pgm
CCICONVCL-	clp	Processing program for the JMS receive trigger.
CCICONV	cbl	Process the CTN info and build Def & Charge rclds
CPRODEF	pf	Circuit Court File containing the CTN defendant data
CPROCHG	pf	Circuit Court File containing the CTN charge data

Record Layouts

PROS@IN

PROS@OUT

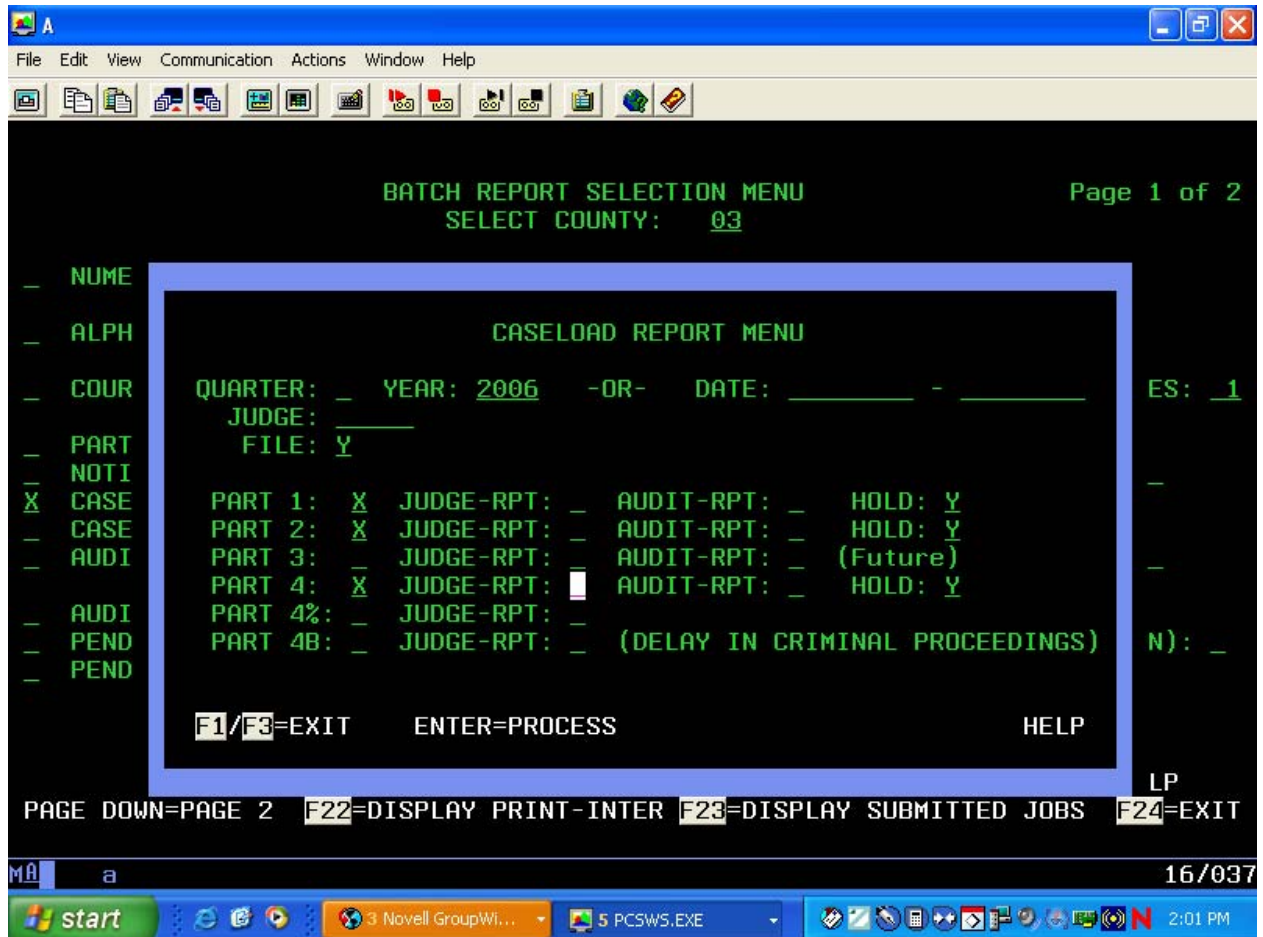
PROSALL

24. Appendix J – Imaging Interface

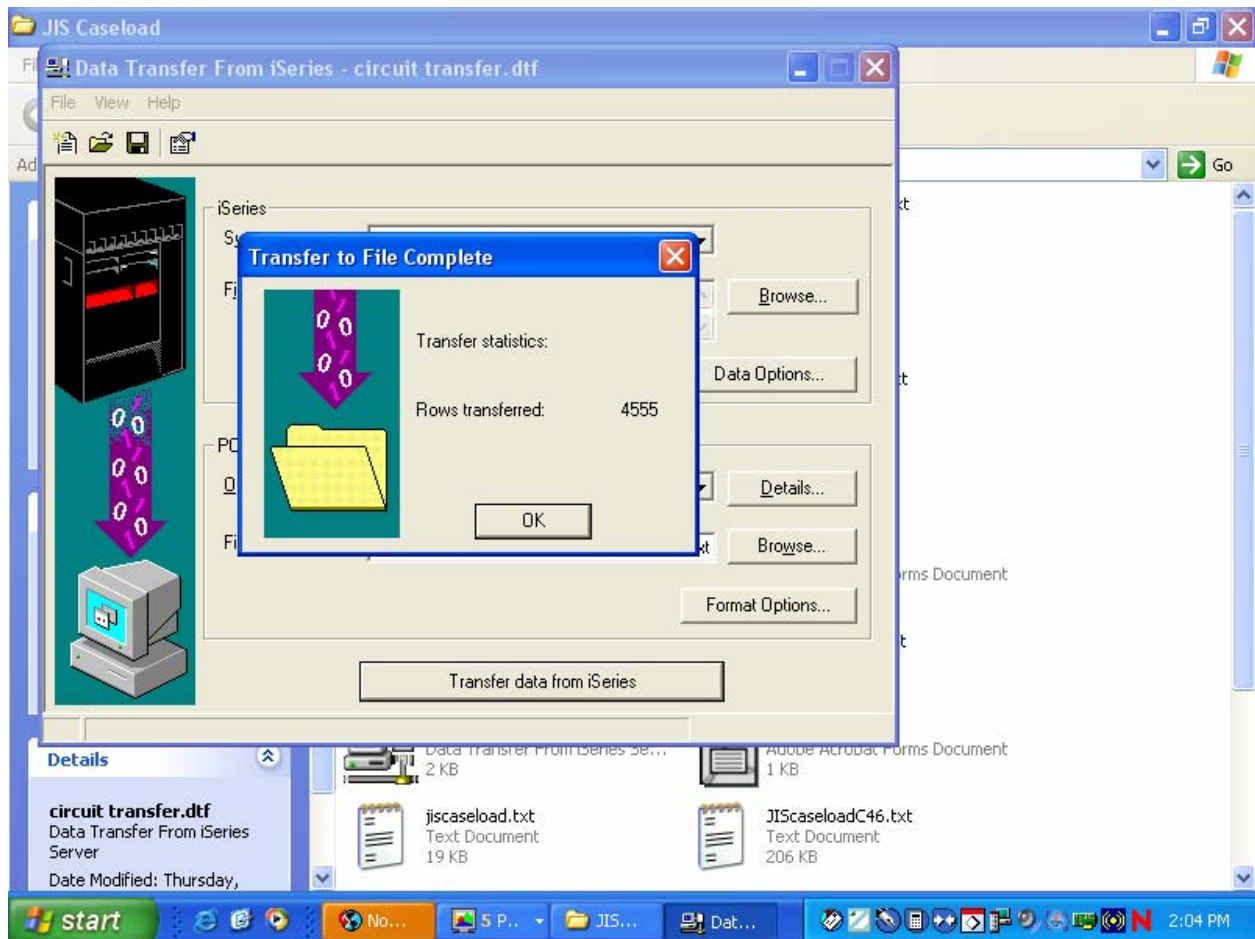
No further information is required for the Imaging Interface because it will be replaced in the new system with a .NET Application Programming Interface (API).

25. Appendix K – Case Reporting System File Sample

The following screen is where the case management user creates the CRS file extract on the AS/400:



The following PC screen is where the imports the file from the AS/400 on to the PC.



File Sample:

```
"C","4","2006","C48","ALLEGAN","2","G","P000000","TR","AB","000000"
"C","4","2006","C48","ALLEGAN","2","G","P000000","TR","AC","000000"
"C","4","2006","C48","ALLEGAN","2","G","P000000","TR","AD","000000"
"C","4","2006","C48","ALLEGAN","2","G","P000000","TR","AF","000000"
"C","4","2006","C48","ALLEGAN","2","G","P000000","TR","AG","000000"
"C","4","2006","C48","ALLEGAN","2","G","P000000","TR","AM","000000"
"C","4","2006","C48","ALLEGAN","2","G","P000000","TR","AN","000000"
```

"C","4","2006","C48","ALLEGAN","2","G","P000000","TR","AO","000000"
 "C","4","2006","C48","ALLEGAN","2","G","P000000","TR","AY","000000"
 "C","4","2006","C48","ALLEGAN","2","G","P000000","WP","AB","000000"
 "C","4","2006","C48","ALLEGAN","2","G","P000000","WP","AC","000000"
 "C","4","2006","C48","ALLEGAN","2","G","P000000","WP","AD","000000"
 "C","4","2006","C48","ALLEGAN","2","G","P000000","WP","AF","000000"
 "C","4","2006","C48","ALLEGAN","2","G","P000000","WP","AG","000000"
 "C","4","2006","C48","ALLEGAN","2","G","P000000","WP","AM","000000"
 "C","4","2006","C48","ALLEGAN","2","G","P000000","WP","AN","000000"
 "C","4","2006","C48","ALLEGAN","2","G","P000000","WP","AO","000000"
 "C","4","2006","C48","ALLEGAN","2","G","P000000","WP","AY","000000"

26. Appendix L - Delay in Criminal Proceeding Sample



C:\Documents and Settings\ShahGA\Des

27. Appendix M - Ticket Upload Interface

27.1 Supplemental UD-8 Field Definitions for JIS

Field Name	Description & Comments	Format
TACTIONCD	Action Code – 'ADD' for new tickets	Left justified

Field Name	Description & Comments	Format
TTICKETNO	Ticket number – courts prefer only 7 characters in order to leave room for . a prefix & suffix.	Left justified
TDEPTNO	Officer department number – needs to be a valid officer department number used by the court	Numeric
TOFCIDNO2	Badge number of second officer involved – (optional)	Alpha left justified
TOFFNMTH	Offense date month – 2 digits	Numeric
TOFFNDAY	Offense date day – 2 digits	Numeric
TOFFNYEAR	Offense date year – 4 digits ccyy	numeric
TOFFNTIME	Offense time – 4 digits military time as hhmm	Numeric
TBIRTHMTH	Defendant’s month of birth – 2 digits (optional)	Numeric
TBIRTHDAY	Defendant’s day of birth – 2 digits (optional)	Numeric
TBIRTHYEAR	Defendant’s year of birth – 4 digits ccyy (optional)	Numeric
TDRVLICST	Defendant’s Driver license state abbreviation (optional)	Alpha
TDRVLICNO	Defendant’s Driver license number (optional)	Alpha
TSSNO	Defendant’s Social Security Number (optional)	Numeric
TRACE	Defendant’s race – valid NCIC race codes (optional)	Alpha
TSEX	Defendant’s sex (M, F, or U optional)	Alpha
TNAMEF	Defendant’s first name (optional)	Alpha
TNAMEM	Defendant’s middle name (optional)	Alpha
TNAMEL	Defendant’s last name (optional)	Alpha
TNAMESUFFIX	Defendant’s name suffix – NCIC codes (optional)	Alpha

Field Name	Description & Comments	Format
TADDRNO	Defendant's address number (optional)	Alpha
TADDRDIR	Defendant's address direction – N, S, E, W, etc (optional)	Alpha
TSTREET	Defendant's address street (optional)	Alpha
TSTREETSFY	Defendant's address street suffix (optional)	Alpha
TAPTNO	Defendant's address apartment number (optional)	Alpha
TCITY	Defendant's address city (optional)	Alpha
TSTATE	Defendant's address state – NCIC state codes (optional)	Alpha
TZIP	Defendant's address zip code (optional)	Alpha
TVEHREGNO	Vehicle plate number	Alpha
TVEHREGST	Vehicle plate state – NCIC state codes	Alpha
TVEHREGYR	Vehicle plate expiration year – ccy	Numeric
TVEHYEAR	Vehicle year – ccy	Numeric
TVEHMAKE	Vehicle make – NCIC make codes	Alpha
TVEHCOLOR1	Vehicle color – NCIC codes	Alpha
TVEHSTYLE	Vehicle style – NCIC codes	Alpha
TVEHTYPE	Vehicle type – NCIC codes	Alpha
TLOCALORD	Local vs. state offense – If the ticket is written as a local ordinance offense, this field should contain a value of "1". If the ticket is written as a state offense, then this field should contain a value of "0".	Alpha
TUPNPREFX	Offense location street name prefix (optional)	Alpha
TUPSTREET	Offense location street name (optional)	Alpha

Field Name	Description & Comments	Format
TUPNSUFFIX	Offense location street suffix - N, S, E, W, etc (optional)	Alpha
TUPNDIR	Upon direction - additional location information (Optional)	Alpha
TUPNDIST	Upon distance - additional location information (Optional)	Alpha
TUPNFEETML	Upon feet/mile - additional location information (Optional)	Alpha
TATNRPREFIX	Offense location at or near street prefix (optional)	Alpha
TATNRSTRET	Offense location at or near street (optional)	Alpha
TATNRSUFFIX	Offense location at or near street suffix (optional)	Alpha
	<p>Note:</p> <p>The UD-8 allows for up to three offenses written for the same defendant on a single ticket. The following field names containing a suffix of 1, 2, or 3 refer to the offense number. When only one offense is written, fields for suffixes 2 and 3 will be blank. When two offenses are written for the same defendant, fields with a suffix of 3 will be blank.</p>	
TCTCASTYP1	Court case type assigned to the first offense (optional as long as the field, TSOSCD1, TPACCODE1, or TMCLCODE1 is supplied)	Alpha
TSOSCD1	Michigan Secretary of State offense code for conviction and suspension processing (this field is optional when either fields TPACCODE1 or TMCLCODE1 contain a value)	Alpha
TCTCASTYP2	Court case type assigned to the second offense (optional as long as the field, TSOSCD2 TPACCODE2 or TMCLCODE2 is supplied)	Alpha
TSOSCD2	Michigan Secretary of State offense code for conviction and suspension processing (this field is optional when either fields TPACCODE2 or TMCLCODE2 contain a	Alpha

Field Name	Description & Comments	Format
	value)	
TCTCASTYP3	Court case type assigned to the third offense (optional as long as the field, TSOSCD3, TPACCODE3, or TMCLCODE3 is supplied	Alpha
TSOSCD1	Michigan Secretary of State offense code for conviction and suspension processing (this field is optional when either fields TPACCODE3 or TMCLCODE3 contain a value)	Alpha
TCIVINFR1	Civil infraction flag – When the offense is a civil infraction, move “1” to this field	Alpha
TCIVINFR2	Civil infraction flag – When the offense is a civil infraction, move “1” to this field	Alpha
TCIVINFR3	Civil infraction flag – When the offense is a civil infraction, move “1” to this field	Alpha
TMISDEM1	Misdemeanor flag – When the offense is a misdemeanor, move “1” to this field	Alpha
TMISDEM2	Misdemeanor flag – When the offense is a misdemeanor, move “1” to this field	Alpha
TMISDEM3	Misdemeanor flag – When the offense is a misdemeanor, move “1” to this field	Alpha
TFELONY1	Felony flag – When the offense is a felony, move “1” to this field (not valid for parking tickets)	Alpha
TFELONY2	Felony flag – When the offense is a felony, move “1” to this field (not valid for parking tickets)	Alpha
TFELONY3	Felony flag – When the offense is a felony, move “1” to this field (not valid for parking tickets)	Alpha
TWARNING1	Optional, not used for parking tickets	Alpha
TWARNING2	Optional, not used for parking tickets	Alpha

Field Name	Description & Comments	Format
TWARNING3	Optional, not used for parking tickets	Alpha
TFUGITIV1	Optional, not used for parking tickets	Alpha
TFUGITIV2	Optional, not used for parking tickets	Alpha
TFUGITIV3	Optional, not used for parking tickets	Alpha
TAUTHPND1	Optional, not used for parking tickets	Alpha
TAUTHPND2	Optional, not used for parking tickets	Alpha
TAUTHPND3	Optional, not used for parking tickets	Alpha
TMCLCODE1	Michigan Compiled Law Code (this should be the court's offense code. If not supplied, fields TSOSCD1, TPACCCODE1, or TDESC1 must contain a value)	Alpha
TMCLCODE2	Michigan Compiled Law Code (this should be the court's offense code. If not supplied, fields TSOSCD2, TPACCCODE2, or TDESC2 must contain a value)	Alpha
TMCLCODE3	Michigan Compiled Law Code (this should be the court's offense code. If not supplied, fields TSOSCD3, TPACCCODE3, or TDESC3 must contain a value)	Alpha
TPACCCODE1	PACC Code for offense. Not used for parking tickets.	Alpha
TPACCCODE2	PACC Code for offense. Not used for parking tickets.	Alpha
TPACCCODE3	PACC Code for offense. Not used for parking tickets.	Alpha
TDESC1	Description of offense. Only necessary when there isn't a TSOSCD1, TMCLCODE1 or TPACCCODE1 code supplied.	Alpha
TDESC2	Description of offense. Only necessary when there isn't a TSOSCD2, TMCLCODE2 or TPACCCODE2 code supplied.	Alpha
TDESC3	Description of offense. Only necessary when there isn't a	Alpha

Field Name	Description & Comments	Format
	TSOSCD3, TMCLCODE3 or TPACCCODE3 code supplied.	
TSPEED1	Speed charged (only required for speeding offenses)	Numeric
TSPEED2	Speed charged (only required for speeding offenses)	Numeric
TSPEED3	Speed charged (only required for speeding offenses)	Numeric
TSPEEDLMT1	Posted speed limit (only required for speeding offenses)	Numeric
TSPEEDLMT2	Posted speed limit (only required for speeding offenses)	Numeric
TSPEEDLMT3	Posted speed limit (only required for speeding offenses)	Numeric
TSPEEDFRM1	Former posted speed limit (only required for speeding offenses in a zone where a speed limit has changed)	Numeric
TSPEEDFRM2	Former posted speed limit (only required for speeding offenses in a zone where a speed limit has changed)	Numeric
TSPEEDFRM2	Former posted speed limit (only required for speeding offenses in a zone where a speed limit has changed)	Numeric
TREMARKS	<p>Remarks: Any note or comment.</p> <p>The current UD-8 record does not have fields for VIN, meter number or vehicle make. This information can be captured remarks area using the following prefixes and format:</p> <p>VIN= immediately followed by 17 characters data</p> <p>MTR= immediately followed by 10 characters data</p> <p>MK= immediately followed by 27 characters of data.</p> <p>This information can be inserted anywhere within the 200 character field.</p>	Alpha
TTRAFCRSH	Traffic crash – use a value of “1” if the offense involved a crash	Alpha
TDMGROUP	Property damage – use a value of “1” if the offense	Alpha

Field Name	Description & Comments	Format
	involved property damage	
TINJURY	Injury – use a value of “1” if the offense involved a personal injury	Alpha
TDEATH	Death – use a value of “1” if the offense involved a death.	Alpha
TAPPRMTH	Appearance month – 2 digits	Numeric
TAPPRDAY	Appearance day – 2 digits	Numeric
TAPPRYEAR	Appearance year – 4 digits ccy	Numeric
TAPPRTIME	Appearance time - 4 digits military time as hhmm	Numeric
THEARMTH	Hearing month – 2 digits	Numeric
THEARDAY	Hearing day – 2 digits	Numeric
THEARYEAR	Hearing year – 4 digits ccy	Numeric
THEARTIME	Hearing time - 4 digits military time as hhmm	Numeric
TCOURTORI	Court ORI number – required	Alpha
TOFCIDNO1	Badge number of primary officer involved – needs to be a valid officer badge number used by the court	Alpha
TAGNCYORI	Police agency or parking division ORI number	Alpha
TAGNCYNAM	Police agency or parking division name	Alpha
TVOIDED	Use a value of “1” if the ticket was voided	Alpha
TVOIDEDBY	Badge number of the person who voided the ticket	Alpha

Note: All Y/N flags are to be stored a Y="1" and N="0"



28. Appendix N SCAO Form-65

Approved, SCAO

DEFICIENCIES IN GUARDIANSHIP/CONSERVATORSHIP ADMINISTRATION Complete semiannually and transmit no later than 30 days following the report date.		Report date June 30 _____ (year) December 31 _____ (year)
Preparer's name	Preparer's telephone no.	County

A: Summary Report of Cases

Line	CASE TYPE	CA	CY	DD	GA	GL	GM	LG
1	Active Cases							
2	Deficient Over 182 Days							

Line 1: For each case type, report the total number of open cases as of the report date.

Line 2: Of the cases reported in Line 1, report each case with a deficiency that existed for more than 182 days unless, before the report date, the deficiency was cured or a special or successor fiduciary was appointed. The day after a document was due, as prescribed by MCR 5.409, is the first day of a deficiency.

B: Detail Report of Deficiencies

For each case reported in Line 2, list the case number, the name of the fiduciary, the date of the deficiency, the type of deficiency, and the court action. If there is more than one deficiency for a case, list each deficiency on a separate line and in consecutive order. Documents that should be monitored for deficiencies are an inventory, an account, a report, and an annual verification of funds on deposit in a restricted account.

Line	Case No.	Name of Fiduciary	Date of Deficiency	Type of Deficiency	Court Action

I certify that on this date I reviewed this report.

Date

Chief judge signature

29. Appendix O D36 Civil Enhancements

The inserted document here describes D36 civil enhancements done by DMC.



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Settings\ShahGA\Des

30. Appendix P D36 Traffic Enhancements

The inserted document here describes D36 traffic enhancements done by DMC.



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Settings\ShahGA\Des