2003 NASCIO Recognition Awards
Nomination Form

Please complete entire form.
All nominations must be postmarked no later than Sunday, May 18, 2003.

Title of Nomination: Missouri Public Service Commission's (MoPSC) Electronic Filing and Information System - EFIS

Project/System Manager: Gay Smith Fred & Todd Craig

Job Title: Project Manager & Information Services Department Manager, respectively

Agency: Missouri Public Service Commission

Department: Information Systems Department

Address: 200 Madison Street, Suite 700; P.O. Box 360

City: Jefferson City

State: Missouri   Zip: 65101

Phone: 573-526-8153

Fax: 573-526-4167

Email: toddcraig@psc.state.mo.us

**Category for judging
(please list only one): Digital Government: Government to Business (G to B)**

Person Nominating
(if different than
above):

Job Title:

Address:

City:

State: Zip:

Phone:

Fax:

Email:

Please return nominations to:

2003 NASCIO Awards
**167 West Main Street, Suite 600
Lexington, KY 40507
Ashley Sinclair
asinclair@amrinc.net**

Missouri Public Service Commission
Executive Summary

The Missouri Public Service Commission (MoPSC) has made a very promising start in fulfilling the State's vision of introducing eGovernment in Missouri - the "Show Me State," by implementing its Electronic Filing and Information System (EFIS), which went live in April 2002. It is an integrated Web-enabled case management and communications system allowing seamless, secure and controlled interactive access to the Commissioners, all internal staff, the Office of the Public Counsel, Intervenors, Utilities and Ratepayers. EFIS will become a primary link for an estimated 7,000 external users in the foreseeable future providing a user-friendly, interactive facility for information exchange. Approximately 300 - 500 concurrent users are likely to use this Web-based system created using technologies provided by FileNET (Panagon eProcess) and Microsoft (MS-SQL and IIS). These off the shelve technologies were customized for MoPSC by Gulf Computers, Inc. whose former parent was *e*Gulf Technologies, Inc. [Now Gulf is HCL Technologies (Mass.) Inc.]

The system integrates automated process management, imaging and content management into a central electronic repository for complaints, inquiries, tariff/rate case filings, staff reports, Commission agendas and orders. The Case Management System meets the functional requirements of case/ tariff processing, which includes scheduling/calendaring, recording case activity, workflow, metrics, document generation/retrieval, and reporting. The system routes the filed documents for timely processing within the Intranet by subject matter experts, general counsels and regulatory law judges to facilitate efficient and timely decision-making by the Commission. All designated documents are available for viewing through the MoPSC Web site.

The Web portal gives Utilities and Intervenors a facility for timely electronic filing of case and non-case related documents as attachments, filing and responding to data requests, and even to submit annual reports. The electronic filing and/or replacement of large tariffs and even legal substitution of electronic pages is completely secured by the system by automatic versioning of all documents checked-in or checked-out. Authorized users can electronically file or view new and existing cases, tariffs and appeals, supplemental submissions, interconnection agreements, small company rate increase requests, service lists, docket sheets, and much more. Any paper filings/submissions are also converted to electronic images with searchable text by the Commission 's Data Center.

This way of doing business becomes "eRegulation" in its true sense, through the EFIS Web portal that enables secure and controlled access by the consumers. The Consumer Quality System meets comprehensive functional requirements of maintaining and tracking common complaint and inquiry processing such as intake, assigning tasks, transmitting information, and documenting activity in a confidential manner, with due regard to the metrics, document generation, survey generation and tracking, workflow scheduling, and ad-hoc reporting. The system empowers the public not only to view the Commission's agenda and minutes on the 'Net' but also to request items to be placed on the agenda, and for monitoring the status of cases in progress. One of its innovative features includes public viewing of critical outage-related information published over the MoPSC Web site as a scrolling marquee.

Contact Information: Donna Prenger, Director of Administration, Missouri Public Service Commission, 200 Madison Street, Suite 1060, P. O. Box 360, Jefferson City, MO 65101, (573) 751-7492, Fax: (573) 751-0429, donnaprenger@psc.state.mo.us.

A. DESCRIPTION OF PROJECT (*INCLUDING LENGTH OF TIME IN OPERATION*):

The Missouri Public Service Commission (MoPSC) has made a very promising start in fulfilling the State's vision of introducing eGovernment in Missouri - the "Show Me State," by implementing its Electronic Filing and Information System (EFIS), which went live in April 2002. It is an integrated Web-enabled case management and communications system allowing seamless, secure and controlled interactive access to the Commissioners, all internal staff, the Office of the Public Counsel, Intervenors, Utilities and Ratepayers. It is a complete eRegulation System using the power of the Internet for B2B and B2C and B2G interaction. EFIS will become a primary link for an estimated 7,000 external users in the foreseeable future providing a user-friendly, interactive facility for information exchange. Approximately 300 - 500 concurrent users are likely to use this Web-based system created by Gulf Computers, Inc. whose former parent was *e*Gulf Technologies, Inc. [Now Gulf is HCL Technologies (Mass.) Inc.]

The solution uses FileNET's Content Services and Panagon eProcess Web-based workflow. The system integrates automated process management, imaging and content management into a central electronic repository for complaints, inquiries, tariff/rate case filings, staff reports, Commission agendas and orders. The Case Management System meets the functional requirements of case/tariff processing, which includes scheduling/calendaring, recording case activity, workflow, metrics, document generation/ retrieval, and reporting. The system routes the filed documents for timely processing within the Intranet by subject matter experts, general counsels and regulatory law judges to facilitate efficient and timely decision-making by the Commission. All designated documents are available for viewing through the MoPSC Web site.

The Web portal gives Utilities and Intervenors a facility for timely electronic filing of case and non-case related documents as attachments, filing and responding to data requests, and even to submit annual reports. The electronic filing and/or replacement of large tariffs and even legal substitution of electronic pages is completely secured by the system by automatic versioning of all documents checked-in or checked-out. Authorized users can electronically file or view new and existing cases, tariffs and appeals, supplemental submissions, interconnection agreements, small company rate increase requests, service lists, docket sheets, and much more. Any paper filings/submissions are also converted to electronic images with searchable text by the Commission 's Data Center.

This way of doing business becomes "eRegulation" in its true sense, through the EFIS Web portal that enables secure and controlled access by the consumers. The Consumer Quality System meets comprehensive functional requirements of maintaining and tracking common complaint and inquiry processing such as intake, assigning tasks, transmitting information, and documenting activity in a confidential manner, with due regard to the metrics, document generation, survey generation and tracking, workflow scheduling, and ad-hoc reporting. The system empowers the public not only to view the Commission's agenda and minutes on the 'Net' but also to request items to be placed on the agenda, and for monitoring the status of cases in progress. One of its innovative features includes public viewing of critical outage-related information published over the MoPSC Web site as a scrolling marquee.

Number of MoPSC Employees: 220 (approximately);

Number EFIS Solution Users via the Internet:
- 200 PSC Employees,
- 2,300 Stakeholders, Intervenors, Other Missouri Government Employees, and
- Over 1 Million Missouri residents are expected to use the Web portal eventually

Development time for this solution: 2 years

Length of time the EFIS solution has been in use: One year on April 2003.

System Design
MoPSC's EFIS system is developed on FileNET's eProcess architecture using FileNET Panagon eProcess Services integrated with Content Services (CS), and Image Services (IS). MS-SQL Server 7.0 is used for data storage.

The system is deployed on a Microsoft IIS server. A user interacts with the system over the Internet using a browser-based interface.

The automated solution maintains a central repository of electronic documents (submitted over the Web or scanned using Panagon Capture Desktop using Panagon Content Services.

eProcess WorkFlo components are used in the system to automate the business processes of the client. These workflow definitions are stored in Content Services (CS) and the WorkFlo engine resides on the Image Server (IS).
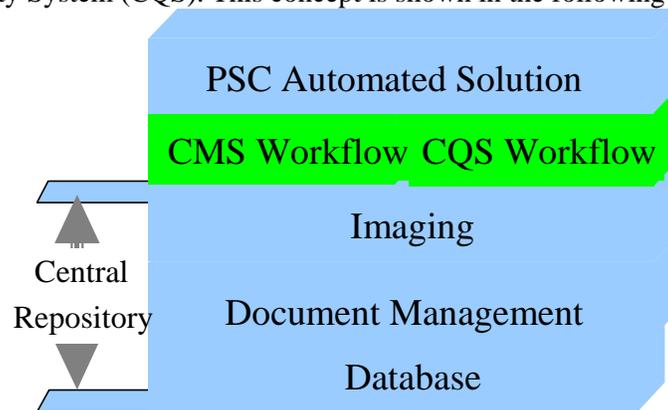
System Architecture
The EFIS system is deployed on a Microsoft IIS server. Panagon eProcess services (Panagon Web WorkFlo Services and Panagon Web Services) reside on the same IIS server. Panagon Content Services (CS) and Image Services (IS) reside on different Windows 2000 servers.

The system uses Panagon Web services as an interface between the application and the Content Services (CS) for storing/retrieving documents submitted to the EFIS system.

Panagon Web WorkFlo service is used by the EFIS system as an interface with the WorkFlo Server that resides on Panagon Image Services (IS) for automation of the client's business processes.
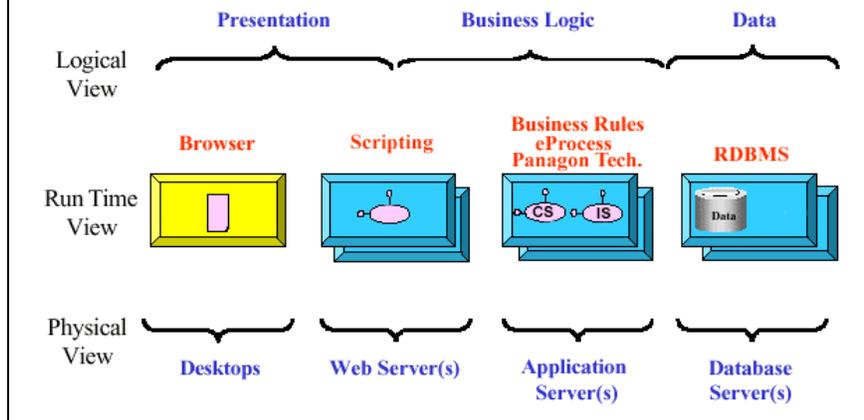
The Automated Solution consists of a central repository for documents (electronic documents and images) and structured data supporting two related applications, the Case Management System (CMS) and the Customer Quality System (CQS). This concept is shown in the following diagram:
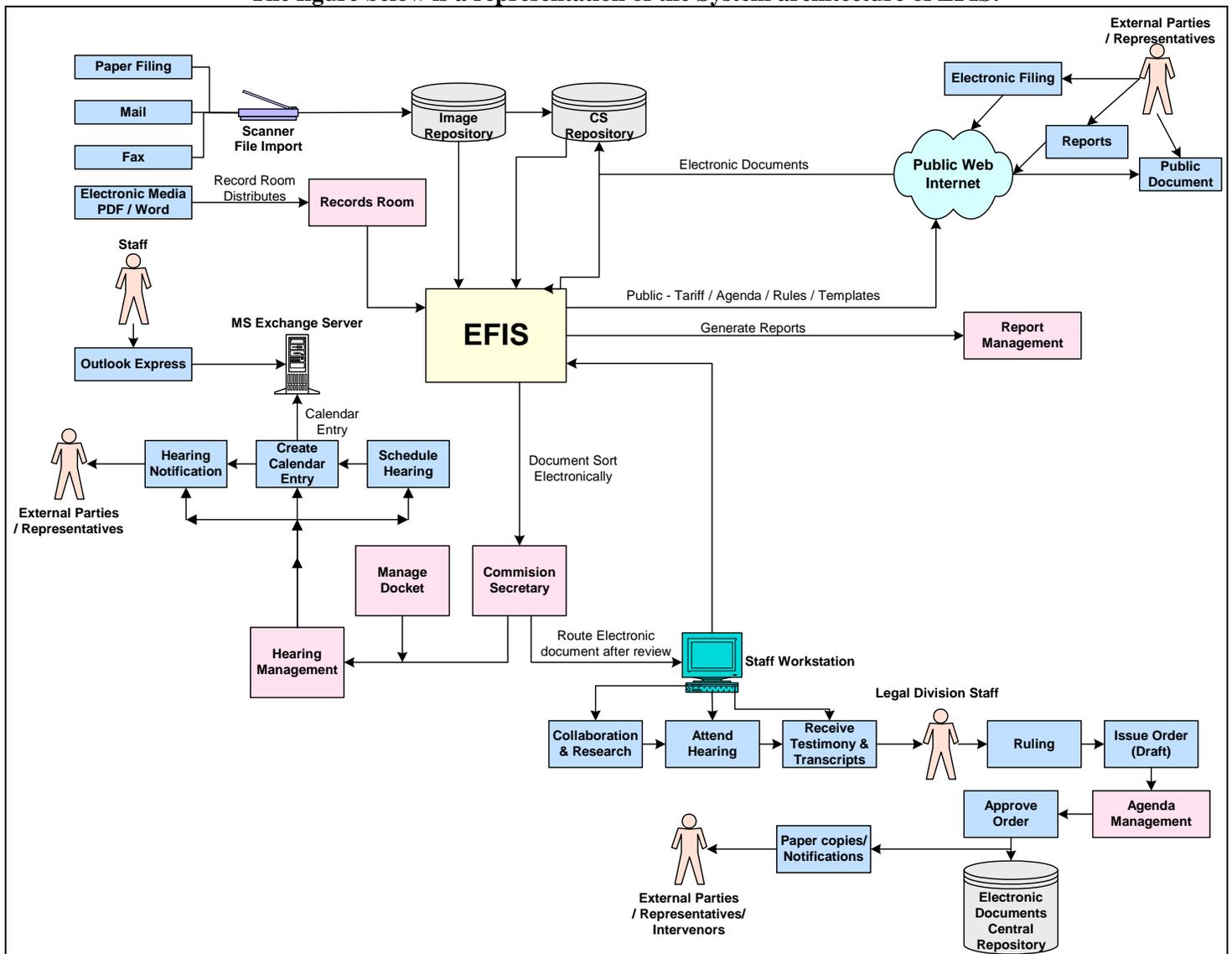

The application's basic functionality can be segmented into three logical services: presentation services, business services, and data services.

The figure below is a graphic representation of the technical architecture topology that was used to develop the application.

Ultra-Thin Topology

	Presentation		Business Logic		Data
Logical View					
Run Time View	Browser	Scripting	Business Rules eProcess Panagon Tech.		RDBMS
Physical View	Desktops	Web Server(s)	Application Server(s)		Database Server(s)

The figure below is a representation of the System architecture of EFIS:

The MoPSC application solution runs on following technical environment:

Server side Language:	ASP 2.0, Java 2 for Workflow for Step-processes.
Client side Scripting:	JavaScript
RDBMS:	MS SQL Server 7.0
Server:	IIS 4.0
FileNET:	Image Server 3.5, Content Server, Panagon WorkFlo server 3.1, Panagon Web WorkFlo Services, and IDM Web Services 3.1.
COM:	JiGlue Bridge ver 2.0
Scan S/w:	Capture Desktop, VB 6.0.

The System integrates with following applications:

Integration with Microsoft Exchange Server 5.5 and Outlook Scheduling Calendar events and sending Email notifications.

Integration with RetrievalWare 6.9 (Convera) for content search (full text search) on documents committed to the Content Services (CS).

B. SIGNIFICANCE TO THE IMPROVEMENT OF THE OPERATION OF GOVERNMENT:

The MoPSC regulates over 1,400 investor-owned and other electric, natural gas, telephone, and water and sewer utilities. It is both a quasi-judicial and quasi-legislative agency and is responsible for deciding Public Utilities related cases brought before it and for the promulgation of administrative rules and their enforcement. Hearings are conducted in contested cases in a trial-like setting using evidentiary standards. The MoPSC must make timely decisions not only to extend the procedural and substantive due process to all parties, but also to comply with statutory time limits. Before the *EFIS* solution, the 220 Commission employees were bogged down with paper --- 9 million pages of documents on file, supported only by an antiquated mainframe Docket System application that was both cumbersome and difficult to maintain. With the legacy information storage/retrieval/reporting system in place, the quality of work at MoPSC was severely impacted, with the caseload growing at the rate of 20% per year. This directly affected the public perception of the agency and consequently employee morale. The MoPSC recognized they had to transition the ageing systems; from "Stone Age to Space Age (SASA)" – the actual project name before "EFIS".

C. BENEFITS REALIZED BY SERVICE RECIPIENTS, TAXPAYERS, AGENCY OR STATE

MoPSC had diligently worked towards being the first public utility regulatory agency in the state to offer this level of Web-enabled capability. Also, according to MoPSC Project Manager, Gay Smith Fred, who has researched numerous state implementations, "It is the most extensive Web-based PUC system in the U.S." The value *the EFIS* solution has brought to the Commission, the Office of the Public Counsel, Intervenors, Utilities and Ratepayers has far exceeded expectations of many. Paper based activity has been **reduced by over 60%** and transfer times of documents from one step to the next have been reduced drastically. The consequent saving of 2 hours per employee per day in many departments has resulted in a **25% overall productivity gain.** The *EFIS* solution ensures an efficient eRegulation with happier employees, a satisfied constituency and a growing utility business environment.

D. RETURN ON INVESTMENT, SHORT-TERM/LONG-TERM PAYBACK (INCLUDE SUMMARY CALCULATIONS)

Electronic Filing Information Systems (EFIS) (Estimated Fiscal: Year 2002)

Internal Cost Savings:

Postage	$30,000	Agency actually incurred $66,627 during last fiscal year. This entry assumes that during the transitional period to EFIS, 50% fewer documents will be mailed due to direct access via the internet.
Overnight	$5,000	Agency actually incurred $9,709 during last fiscal year. This entry assumes that during the transitional period to EFIS, 50% fewer documents will be sent via overnight courier.
Print Shop	$50,000	Agency actually incurred $84,510 in printing charges during the last fiscal year, the majority of which were for filing official documents. Assuming a rate of $.025 per page the Agency produced a count of 3,380,400 pages. This entry assumes that the Agency would produce 2,000,000 fewer hard copy pages due to electronic delivery of documents.
Office Supplies (paper)	$5,000	Agency spends about $10,000 per year on copier/printer paper. This entry assumes that fewer pages would be copied or printed due to electronic access and search capability of all documents from inter or intranet.
DED Allocation	$125,000	Agency incurs a rolling percentage charge from DED based on usage. This entry assumes that direct support from DED will decrease primarily due to less use of the State Date Center main frame.

Utility Cost Savings:

Postage	$60,000	As noted above under "Internal Cost Savings" the Agency should be able to reduce its postage expenses. This entry is based on the observation that incoming mail from Utilities is double of outgoing mail.
Overnight	$50,000	This entry is based on observed count of overnight packages. It assumes that Utilities will send most filings electronically.
Personal couriers	$30,000	Utilities will benefit from reduced courier services expenses through electronic filings.
Direct Co. employees	Soft	This entry assumes that many of the 700 plus utilities and 400 plus Manufacture Housing Dealers will save direct time spent dealing with the PSC in producing filings, responding to requests for information, maintaining, coping and filing of internal copies of filings.
Print Shop	$100,000	This entry assumes that the Utility would produce fewer hard copy pages (i.e., original and 8 copies). This entry is based on 5,000 copies per week, annualized.
Document Fees	$46,259	This entry assumes reduction of photocopy charges since documents would be available on the internet.

Ratepayer Costs Savings:

Quicker response to complaints/inquiries	Soft	
Fewer contacts to complaints/inquiries	Soft	