

Governance and the IBM i

Achieving Your Regulatory and Audit Goals





Security and Compliance software for the IBM i environment.

Protect your system from external network threats like ransomware and other viruses

Comply with policy and audit requirements like SOX, PCI, ITIL and others

Ensure integrity of critical and sensitive data

Control remote access to your system

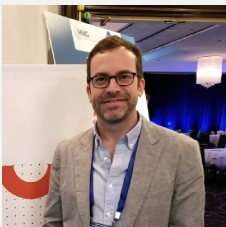
Remotely monitor IBM i applications and OS



ERP Software for the Make-to Order Manufacturer on the IBM i.

Friedman's industry-leading enterprise resource planning system is designed for make-to-order manufacturers who want the stability, dependable up-time, and security of an IBM i system. Whether you choose to deploy on-premises or in the cloud, our Frontier ERP software can help you better manage customer orders, every point in your supply chain, plus your internal manufacturing and financial processes. Frontier is the key to meeting the increasingly high expectations of today's customers and distributors and making you their manufacturer of choice.

PANELISTS



Justin Loeber

Head of Business Development
Kisco Systems

Justin is a 25+ year industry veteran who has served as CIO for a broad array of companies.

Malcolm Jones

Lead Developer
Kisco Systems

A software developer and security specialist on the IBM i for over 30 years, Malcolm is an expert in developing custom exit point solutions.

Eileen Leonard

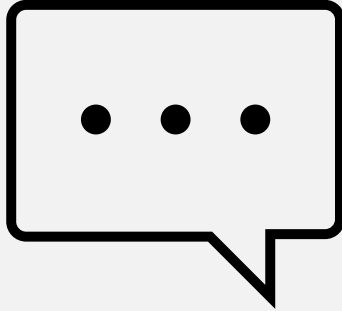
Technical Support
Kisco Systems

Eileen is an IBM mid-range industry veteran with extensive experience shepherding enterprise IT organizations through the audit process.

Craig Skonieczny

President
Friedman Corporation

25+ year IBMi ISV industry veteran with a focus on ERP, WMS and TMS software Implementation and support.



What regulatory or policy requirements are in place within your organization?

Post your replies in the chat

Policy and Regulatory Frameworks



Q: What is Sarbanes Oxley?
(or any policy or regulatory framework)

A: It's just good IT practice

Frameworks codify IT best practices. Ideally, your organization would be already be doing these practices, even without external requirements to meet

Q: So why is compliance so difficult?

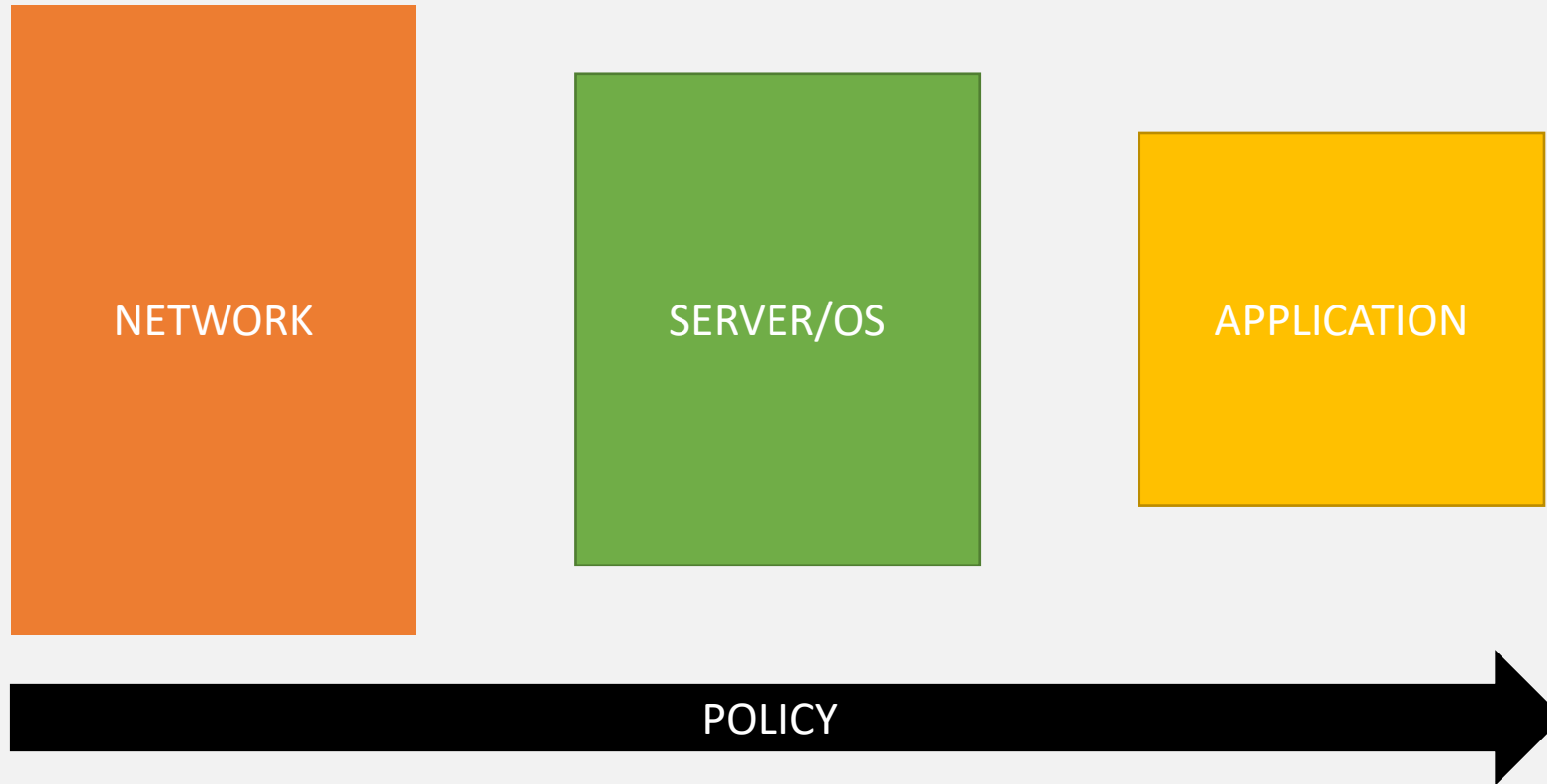
- I have a written security policy
- I have implemented my controls
- Now **prove** it!

The question of ownership

Who is responsible for the functional areas affected by compliance?

	Network	Server OS	Processes	Application	Data
IT					
Finance					
Operations					
MSP/Host					

Where does compliance happen?



EXAMPLE

Separation of Duties:

Does this happen within the application's security settings, or in the user profile configuration in the server OS?

Key areas of compliance...

		Network Connected Environment CL Programs	Native OS Environment system journals	Application Environment Settings
Internal Controls	Access, security, data, change management			
Network Activity				
Database Activity				
Logins				
Account Activity				
User Activity				
Information Access				

Working with Network Connections

Requires custom development!

1. Use IBMi Exit Points for Network Access
 - a) FTP, Telnet, SSH, etc.
2. Develop apps to monitor and log activity
 - a) Requires higher level programming
 - b) CL only OK for FTP
3. Tools to export reports for auditors
 - a) Report by user, exit point, etc.

What is an Exit Point?

the point in a system function or program where control is turned over to one or more exit programs to perform a function.

```
Work with Registration Information

Type options, press Enter.
 5=Display exit point  8=Work with exit programs

Exit
Point
Opt  Exit Point      Format      Registered  Text
=   QIBM_QSY_VLD_PASSWRD  VLDP0100   *YES       Validate Password CHGPWD, QSY
_   QIBM_QSY_VLD_PASSWRD  VLDP0200   *YES       Validate Password CRTUSRPRF,
_   QIBM_QTF_TRANSFER     TRAN0100   *YES       Original File Transfer Functi
_   QIBM_QTG_DEVINIT      INIT0100   *YES       Telnet Device Initialization
_   QIBM_QTG_DEVTERM      TERM0100   *YES       Telnet Device Termination
_   QIBM_QTMF_CLIENT_REQ  VLRQ0100   *YES       FTP Client Request Validation
_   QIBM_QTMF_SERVER_REQ  VLRQ0100   *YES       FTP Server Request Validation
_   QIBM_QTMF_SVR_LOGON   TCPL0100   *YES       FTP Server Logon
_   QIBM_QTMF_SVR_LOGON   TCPL0200   *YES       FTP Server Logon
_   QIBM_QTMF_SVR_LOGON   TCPL0300   *YES       FTP Server Logon
_   QIBM_QTMX_SERVER_REQ  VLRQ0100   *YES       REXEC Server Request Validati

More...
```

Auditing Native OS Environment

Built-in journaling features

1. Audit, object journals
2. OS journals are raw data
3. Data must be interpreted for audit purposes
4. Data export and reporting requirements

What is a journal?

Journal def goes here...

```
Display Journal Entry

Object . . . . . : WRKREGPF      Library . . . . . : PCSECDTA
Member . . . . . :
Incomplete data . . : No          Minimized entry data : *NONE
Sequence . . . . . : 265
Code . . . . . : D - Database file operation
Type . . . . . : DH - File saved

Entry specific data
Column *...+...1...+...2...+...3...+...4...+...5
00001 'SAV      0617220246521PCSECDTA  MPADEVBKUP*LIB  '
00051 ' 061722024653SAFE2092  PCSECJRN  '
00101 ' 0000000199          000000000000000000199 '
00151 '*SYSBAS  '

```

Application Security Capabilities

Authority to programs & roles

The screenshot displays a web-based interface for managing user profiles and their program authorities. On the left, a navigation tree shows a hierarchy of users and groups. The main area is titled "Programs > AP > Users" and contains a table of user profiles. Each row in the table represents a user profile with various attributes and controls. The table includes columns for "Delete", "User Profile", "Program Library", "Enabled", "Override Screen", "Override Library", "Date In", "Date Out", "Ref", "Job Description", and "Job Library". The "Enabled" column contains checkboxes, and the "Date In" and "Date Out" columns contain date pickers. The "Job Description" column contains text boxes with asterisks, indicating a default or specific role. The interface also features "Add" and "Save" buttons at the top and bottom of the table area, and a "Select Users" link in the top right corner.

Programs > AP > Users [Select Users](#)

Add Save

Delete	User Profile	Program Library	Enabled	Override Screen	Override Library	Date In	Date Out	Ref	Job Description	Job Library
<input type="checkbox"/>	ECS033B		<input checked="" type="checkbox"/>						*USRPRF	
<input type="checkbox"/>	ECS033BC		<input checked="" type="checkbox"/>						*USRPRF	
<input type="checkbox"/>	ECS033C		<input checked="" type="checkbox"/>		APMGR				*USRPRF	
<input type="checkbox"/>	ECS033D		<input checked="" type="checkbox"/>						*USRPRF	
<input type="checkbox"/>	FRN033C		<input checked="" type="checkbox"/>						*USRPRF	
<input type="checkbox"/>	MFGSHOP		<input checked="" type="checkbox"/>		AP2				*USRPRF	
<input type="checkbox"/>	ORDERENTRY		<input checked="" type="checkbox"/>						*USRPRF	
<input type="checkbox"/>	RADCUR2		<input checked="" type="checkbox"/>						*USRPRF	
<input type="checkbox"/>	RADCUR2F		<input checked="" type="checkbox"/>						*USRPRF	

Add Save

Q: Example SOX Compliance Checklist

- ✓ All systems up to date, including (and especially) logging and monitoring software.
- ✓ Rapid response to SOX audit alerts received from monitoring systems
- ✓ Classify sensitive financial data and know whenever financial data is created
- ✓ Monitor user behavior and action anomalies that may lead to compliance breaches
- ✓ Regularly review access controls and configure alerts for permissions changes
- ✓ Maintain a regular and up to date SOX compliance status report
- ✓ Ensure SOX auditors have the access they need to do their job.
- ✓ Ensure all staff, old and new, are trained on how best to handle financial data.
- ✓ Report security incidents and breaches in a timely manner and with as much detail as possible

Security and Compliance software for the IBMi

A comprehensive suite of software solutions to monitor, protect and manage the IBMi environment

MONITOR

iEventMonitor - Remote monitoring with custom alerts

iFileAudit - Capture changes to files by user, file and field

iSecMap - Enforce compliance with enterprise security policy

PROTECT

SafetNet/i - Enforce security policy, control remote access and stop external threats

i2Pass - 2 Factor Authentication for the IBM i environment

WebReport/i - Secure reports, encryption and email delivery

MANAGE

iResetMe - Self service password management portal for end users



Decades of IBM mid-range expertise

1984 Kisco Systems founded

1996 SafeNet/i V11.5

1998 WebReport/i V14.0

2006 iFileAudit V7.06

2014 iResetMe V4.07

2014 iSecMap V2.00

2015 iEventMonitor V6.02

2015 i2Pass V3.00



Kisco Systems value proposition

1. We only do IBM i security
2. Products are mature and stable, with minimal support requirements
3. Continuous improvement of products with regular PTF and upgrade releases
4. Low cost, high value

