

**How Agent/Desktop Analytics Help Turn Every Agent into a Top Performer**

**Lori Wizdo  
Vice President,  
Knoa Software**





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**What we will explore today...**




**Explore the “blind spot” that still exists in agent performance monitoring**

**Introduce an emerging practice in agent monitoring**

- End-User Experience Management
- A.K.A.Desktop Analytics

**Explain (just a little bit) how experience monitoring works**

**Review some real world case studies**


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**What we will explore today ... Has Proven Results**

- 1. Reduce AHT**
  - ◆ *A consumer services company identified 30 seconds of potential AHT reduction (about 15%)*
- 2. Reduce Call Center Operating Costs**
  - ◆ *A telecommunications company identify a process improvement that yielded a 25% improvement in productivity – equivalent to a 75 FTE reduction*
  - ◆ *A major energy supplier reduce training budget by 40% with no decrease in agent performance*
- 3. Decrease Cost of Managing Contact Center systems**
  - ◆ *Decreases of 25-50% have been experienced by over 50 global 1000 companies*

**All accomplished with ancillary improvement to Customer Experience & Satisfaction**




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**The Complexity Conundrum**

**Agents interact with several software tools during each call:**

- CRM System
- Soft phone
- Catalog
- Order Management
- Internet
- Knowledge base
- IM/Chat applications



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**Each Agent Uses Technology Differently**

**How well each agent leverages these tools has an impact:**

- AHT
- FCR
- Customer Experience
- Cost
- Productivity
- Outcomes
- Compliance



**Some common technology pitfalls**

- Too many applications in use for a single call
- Application utilization
- System & user errors
- Lack of knowledge or compliant use of CRM system

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**An Inconvenient Truth.... #1**

**The software tools we give our agents are too often complex, cumbersome to use, slow or buggy.**



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An Inconvenient Truth.... #2

**More than you think, your agents are using it incorrectly, ineffectively and inefficiently.**



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An Inconvenient Truth.... #3

**This ineffective use of desktop tools invisible to management**

- Supervisors can't see it
- Quality Management isn't delivering 100% coverage
- Performance Management reports outcomes, but can't identify the root cause



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An Inconvenient Truth.... #4

**This ineffective use of desktop tools is transparently communicated to the customer.**

- "I'm sorry, my system is so slow today"
- "I'm sorry, I had to sign-in again"
- "I'm sorry this is taking so long, I had to retype your details"
- "I am not sure why it's not letting me do this today – it let me yesterday"
- "Oops, hold-on, my screen went blank – let me get it back"



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**Key Questions about Agent/Technology Interaction**

1. How well are key applications performing for my agents
2. How well are my agents using the software applications

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**Key Questions about Agent/Technology Interaction**

1. How well are key applications performing for my agents
  - ◆ Are each of your systems responding within IT committed SLAs?
  - ◆ Are system or application errors slowing agents down?
  - ◆ Just how cumbersome is the user interface?
2. How well are my agents using the software applications

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**Key Questions about Agent/Technology Interaction**

1. How well are key applications performing for my agents
  - ◆ Are each of your systems responding within IT committed SLAs?
  - ◆ Are system or application errors slowing agents down?
  - ◆ Just how cumbersome is the user interface?
2. How well are my agents using the software applications
  - ◆ Are key applications even getting used?
  - ◆ How much time agents spend in each application
  - ◆ Where do agents get stuck or consistently have difficulty
  - ◆ What are the training needs -- overall contact center and each agent.
  - ◆ Which agents are varying from the norm (ideal workflow) per call type? And where?
  - ◆ How does of technology correlate with agent performance and contact center KPIs

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Technology to the rescue ;-)

**“Desktop analytics provides transparency into how agents interact with their servicing applications, eliminating the last black hole in contact centers.”**

**“These applications are delivering cost savings of 5%-10% to organizations. When implemented properly, they help manager achieve their cost savings goals while improving the customer and agent experience.”**

***“In short, they are a gift for our troubled times.”***

Donna Fluss, President, DMG Consulting




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End-User Experience & Performance Management

Measure the real end-user experience and performance with software applications .....  
All agents, all the time, every call



<p><b>Application Response</b></p> <p><b>User-Experienced Response Time</b></p> <ul style="list-style-type: none"> <li>Transaction Response</li> <li>Navigation Response</li> </ul>	<p><b>Quality Of Experience</b></p> <p><b>Infrastructure Errors</b></p> <ul style="list-style-type: none"> <li>OS, Servers, Networks, Databases</li> </ul> <p><b>Application Errors</b></p> <ul style="list-style-type: none"> <li>Siebel Errors, SQL Errors</li> </ul>	<p><b>Adoption &amp; Usage</b></p> <p><b>User Behavior</b></p> <ul style="list-style-type: none"> <li>Utilization</li> <li>User Errors</li> <li>Active/Idle Time</li> </ul> <p><b>User Workflow</b></p> <ul style="list-style-type: none"> <li>Process Proficiency</li> <li>Process Compliance</li> </ul>
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How Is EPM Leveraged for Insight?


**Having the ability to see inside the agent’s behavior is key**

**Global view:**

- ◆ High-level metrics about all agents’ use of all applications

**Deep dive view:**

- ◆ Granular Insight
- ◆ Focus on a particular system (e.g. CRM)
- ◆ Examine the agent’s detailed experience and performance within all transactions in CRM application




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Global EPM provides a horizontal view...

Provide transparency & visibility across all applications that users access (Siebel, CTI, business, internet, productivity, & personal applications)

- Track every application that opens, closes, and is "in focus"
- Track Active/Idle time
- Window Details: Process, Window, Window Title, Memory, CPU, Disk I/O
- Web Application Details: Site, Url, First Page, Window Title, memory, CPU, Disk I/O

User Application Usage clickstream...

- Jane Doe Logged in 8am
- Used Google, CRM App, Product Track, etc...
- Logged out at 5pm

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And often, some eye-opening insights

One Agent/One Day

Application	Minutes
CTI	~100
CRM	~100
IH	~100
KH	~100
CMD	~100
email	~100
Plur	~100
Google	~100
YouTube	~100
Excel	~100
Billing	~100

All Agents/One Week

Application	Usage %
CTI	~15%
CRM	~15%
IH	~15%
KH	~15%
CMD	~15%
email	~15%
Plur	~15%
Google	~15%
YouTube	~15%
Excel	~15%
Billing	~15%

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YouTube	~15%
Excel	~15%
Billing	~15%

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EPM for Target Apps provides a deep analysis...



Provides very details (transaction and user-interface level) for a specific application – in this case CRM

Detailed Transaction-level Reporting

- Active/Idle time
- Transaction Response Time
- Error/Warning Messages
- Attempts
- Workflow

User's clickstream with an application:

- Jane Doe looked up Bob Smith in the customer lookup
- Customer lookup transaction took 3.6 seconds
- Jane clicked on billing history, received Warning message that customer had not been verified
- Jane Verified customer
- Customer Verification transaction took 5.7 seconds




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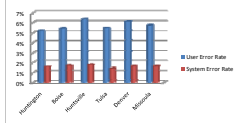
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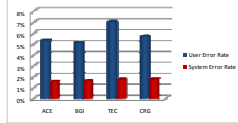
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... and comprehensive views of Agent System Interaction

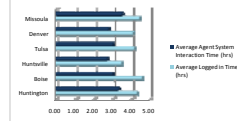
Error Rates by Contact Center



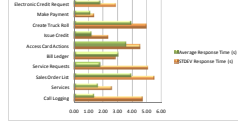
Error Rates by Agent Primary Call Type



Agent System Interaction



Average Response Time (s) By Screen




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Really Neat Stuff!

But, how does it provide value?

- Reduce AHT
- Improve CSAT
- Increase FCR
- Improved Productivity
- Reduce Operations Costs
- Reduced Support Costs




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■ Really Neat Stuff!

**But, how does it provide value?**

**OK, Let's get specific.**



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■ Five Real-Life Use Cases

1. Pinpoint application interface issues that are complicating call flows and extending AHT
2. Identify Non-Compliant (and unauthorized) Use of Applications
3. Proactively manage system performance or quality issues that are impacting performance
4. Identify agent behavior that impacting KPIs (AHT, FCR, CSAT)
5. Capture Undocumented Innovation



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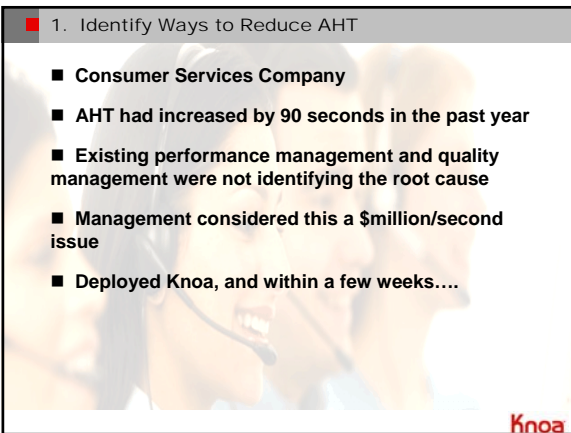
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■ 1. Identify Ways to Reduce AHT

- Consumer Services Company
- AHT had increased by 90 seconds in the past year
- Existing performance management and quality management were not identifying the root cause
- Management considered this a \$million/second issue
- Deployed Knoa, and within a few weeks....



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**1. Identified Potential 40-Second Reduction in AHT**

Sample Remediation	Benefit Impact (seconds)	Supporting Knoa Data
<b>1. Simplify Call Logging Screen</b> Redesign Call Logging screen to simplify recording of call resolution information. Retrain to reduce the number of user errors originating from using the screen	10	30 – 60 seconds to currently complete Call Logging screen 85% of User Errors originate from Call Logging screen
<b>2. Redesign User Interface to eliminate irrelevant messages</b>	9	15-20 warning or non-actionable message screens were presented to end-users
<b>3. Create Self-Help Error Messages</b> Reduce time Agents need to interpret and react to system and user errors by updating error messages with descriptive and actionable language.	2	Average time for agent to process and react to error 5 – 8 seconds

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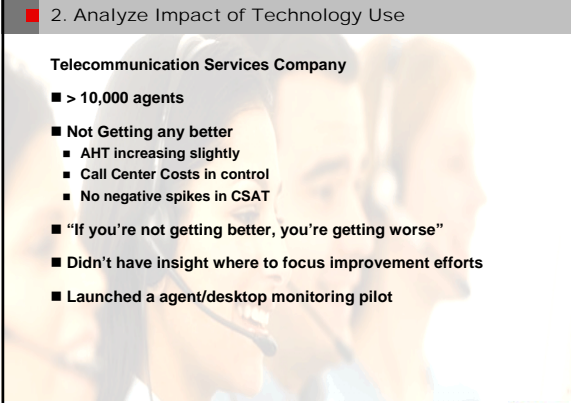
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**2. Analyze Impact of Technology Use**

**Telecommunication Services Company**

- > 10,000 agents
- Not Getting any better
  - AHT increasing slightly
  - Call Center Costs in control
  - No negative spikes in CSAT
- “If you’re not getting better, you’re getting worse”
- Didn’t have insight where to focus improvement efforts
- Launched a agent/desktop monitoring pilot





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**Customer Example: Desktop Application Analysis**

**Average Application Usage Summary: Top 10 by Ticket Grouping**

	Ticket Grouping					
	Customer Computer	Customer Education	Customer Support	Dispatch	DSL	Modem
1.	Random Internet	Chat/Phone	CRM APP	CRM APP	CRM APP	Chat/Phone
2.	CRM APP	Notepad/Wordpad/Notes	Random Internet	IRC Chat	SimpLite	CRM APP
3.	Chat/Phone	CRM APP	Notepad/Wordpad/Notes	Notepad/Wordpad/Notes	IRC Chat	Random Internet
4.	Notepad/Wordpad/Notes	Random Internet	CLIENT external website	Random Internet	Notepad/Wordpad/Notes	Notepad/Wordpad/Notes
5.	Product Check Tool	Product Check Tool	Chat/Phone	Calculator	Random Internet	Product Check Tool
6.	Windows General	CLIENT external website	Product Check Tool	Google	Product Check Tool	RMA/Dispatch
7.	Google	RMA/Dispatch	RMA/Dispatch	APP X	RMA/Dispatch	Windows General
8.	CLIENT external website	Windows General	Windows General	Product Check Tool	CLIENT external website	CLIENT external website
9.	RMA/Dispatch	Kodak Easy Share	Windows Live	Workflow Tool	Knowledge Base (1/2)	Google
10.	Workflow Manager	Google	Workflow Tool	Knowledge Base (1/2)	Windows General	Excel



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**Customer Example: Desktop Application Analysis**

The top 5 and the bottom 5 applications were identified and measured by the top agents vs. the rest of the agents:

Best Agent Application Ranking	Application	General Population Ranking	Bottom Agent Application Ranking	Application	General Population Ranking
1	Google	7	1	Notepad / Wordpad / Notes	4
2	CRM App	2	2	CRM App	2
3	Random Internet	3	3	Product Check	5
4	Chat/Phone	1	4	Workflow Tool	7
5	Product Check	5	5	Random Internet	3

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**Identify Non-Compliant Use of Technology**

**Key Findings:**

- Agents were not using the Knowledge Base
  - ◆ Started every day, but not actually used
  - ◆ Using FAQ on the customer-facing website
- Company killed a plan to upgrade the Knowledge Base system
- Invested in customer-facing FAQ
- Results:
  - ◆ Improved chances for Customer Self Service
  - ◆ Saved > \$1,000,000

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**Identify Non-Compliant Use of Technology**

**Key Findings:**

- Some agents were using CRM system significantly before and after their shift
- They were using notepad to capture notes during the call
- The AHT for these agents was lower (10-15%)
- But their FCR (First Call Resolution) was ~80% lower than peers
- Response times for this location in the Seibel application were 25% higher than in some other locations

**Actions:**

- Investigated and resolved the performance problems
- Retrained the agents on proper use of the CRM application

**Results:**

- AHT did not degrade
- FCR rates rose to peer standard

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**3. Proactively Manage System Problems**


**Global Telecommunications Company**

Deployed Knoa to support major Seibel expansion in retail sales and small business call centers

**Results:**

End-user population doubled and concurrent sessions tripled with no increase in IT support team, and has identified £152,500 of productivity savings.

- Saves 80 hours a month by not investigating 'non-problems' which yields annual productivity gain of £25,000.
- For real issues Knoa saves 4 hours per incident, which yields annual recurring productivity gain of £37,500.
- Avoids about 30 site visits for an annual recurring cost reduction of £90,000.




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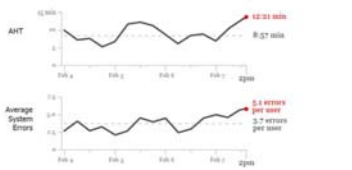
**3. Proactively Manage System Problems**

From: Knoa Console  
 Sent: Friday, May 01, 2009 2:48 PM  
 To: Jim Singleton  
 Subject: WARNING\*\*Seibel errors impacting AHT for call type CUSTOMER DISCONNECTS  
 Importance: High  
 Jim,  
 Knoa has identified a threshold breach for the following system error at the New York Contact Center


**Automated alerts helped guide support team :**

Impact to AHT has been calculated at:  
 +74 seconds

Please click the link below to access Knoa dashboards for further analysis



A correlation was spotted between AHT and system errors




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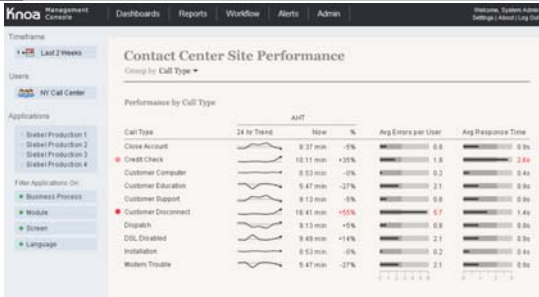
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**3. Proactively Manage System Problems**



- Knoa console containing report on performance by call type
- Customer Disconnect is experiencing the greatest amount of errors
- AHT for Customer Disconnect call type has also spiked over the past 24 hours




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### 3. Proactively Manage System Problems

Error Type	Count
Communication Failed	63
File Not Found	~15
Time Out Error	~10
User Has No Ticket	~5
Server Disconnect	~5
Server Timeout	~5
Port Connection Down	~5
No Virtual Memory	~5

- Drilling into Customer Disconnect we see the type of errors that are occurring
- 63 of the total errors are "Communication Failed"
- This error is associated with Siebel users not being able to connect to the server

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### 3. Proactively Manage System Problems

The Siebel Production Servers are unable to connect to the Siebel database server. This is causing a significant number of errors to be reported by the Siebel users. The errors are: Communication Failed, File Not Found, Time Out Error, User Has No Ticket, Server Disconnect, Server Timeout, Port Connection Down, No Virtual Memory.

- After analysis has been completed a trouble ticket is generated in Remedy
- Knoa data is used to communicate to IT the impact areas of the problem; 24 errors in the last 60 minutes occurring on all for Siebel production servers
- Due to the severity of the issue and the impact on AHT, IT takes immediate action

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### Unanticipated Results

**"The main drive for taking on Knoa was to get an end-user view of the application performance. We had various other mechanisms before that gave us a gauge of how the application was performing at the caller interface, but Knoa was the first time we used live data from desktops, the first time we saw real performance."**

*-Philip McBurney, Director CMP Program, British Telecom*

**"We had been looking to deploy a response time monitoring tool, when we evaluated Knoa EPM, which monitors the complete user experience with a passive agent approach. The insight in actual end-user experience gives us benefits across the board, helping target response time issues, solve end-user problems faster, identify usage and adoption issues, and even make priority decisions on ongoing application investments."**

*-Stuart Smith, Director of CRM performance, British Telecom*

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### 4. Identify Agent Behavior Impacting Performance

The screenshot shows the 'Contact Center Site Performance' dashboard with three pie charts comparing application usage:

- Top 3 Superiors by CSAT:** Siebel 40%, MS Word 20%, Knowledge Base 10%.
- Best Practices Application Usage:** Siebel 40%, MS Word 20%, Knowledge Base 10%.
- Bottom 3 Superiors by CSAT:** Siebel 20%, MS Word 20%, Knowledge Base 10%.

CSAT Scores: 77% (Top 3) vs 41% (Bottom 3).

- This report on application utilization compares our top 3 performers to the bottom 3 and to the recommended best practice usage
- There is a clear distinction between the usage of Siebel and MS Word

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### 4. Identify Agent Behavior Impacting Performance

From: Knoa Console  
 Sent: Fri, May 01, 2009 2:49 PM  
 To: Jon Singleton  
 Subject: Warning: Siebel user errors may be impacting AHT

Jon - Knoa has identified a threshold breach for the following user errors:

- "You cannot create a track call under the SR has a Resolution Code of Service Call" -SIEBEL- +31%
- "The Access Card PID you have entered is invalid" -SIEBEL- +30%
- "You do not have permission to change the account type" VZON -SIEBEL- +27%

Impact to AHT has been calculated at:  
**+54 seconds**

Please click the link below to access Knoa dashboards for further analysis

The graphs show a significant spike in both AHT and Average User Errors around May 1st, 2009.

- An email alert is generated indicating a spike in AHT
- Knoa has identified a correlation to the number of user errors being generated by the call center agents
- The email contains a link to the Knoa console for further investigation

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### AHT Impacted by User Errors

The screenshot shows the 'Agent Performance from 1pm to 2pm' dashboard with trend data for AHT and Agent Errors:

Metric	0-30 Days	60-90 Days	90+ Days
AHT	15.42 min +27%	10.55 min -2%	9.58 min +1%
Agent Count	141	163	79
Agent Errors	7.4	2.1	2.1
User	1.8	1.7	1.8
System	1.7	1.7	1.7
App	2.7	2.6	2.7

- Knoa console generates a 30/60/90 day dashboard for call center performance
- This dashboard shows trend data for agent performance between 1:00-2:00pm
- We notice AHT has spiked and user error have breached a critical threshold

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### AHT Impacted by User Errors

The screenshot shows a dashboard titled 'Contact Center Site Performance' with a sub-header 'Top 5 User Error Rates from open to open'. It features two tables of performance metrics for 'Supervisor' and 'Call Type' categories, each with columns for 'Last 24 Hours' and 'User Errors per Hour'.

Supervisor	Last 24 Hours	User Errors per Hour	Trainer	Last 24 Hours	User Errors per Hour
Mike Jones	[Line Graph]	9.1	Frank Johns	[Line Graph]	10.1
Alan Smith	[Line Graph]	6.8	Alan Smith	[Line Graph]	6.7
Jane Doe	[Line Graph]	4.7	Jerry Public	[Line Graph]	5.2
Ally High	[Line Graph]	3.9	Mike Friedman	[Line Graph]	4.8
Judith Carr	[Line Graph]	3.8	Bob Thomas	[Line Graph]	4.7

Call Type	Last 24 Hours	User Errors per Hour	Screen	Last 24 Hours	User Errors per Hour
Service Account Last View	[Line Graph]	9.2	Call Logging	[Line Graph]	4.4
Bill Langer	[Line Graph]	4.9	Bill Langer	[Line Graph]	4.1
Services	[Line Graph]	4.5	Service Account Last View	[Line Graph]	3.5
Discontinue Account	[Line Graph]	4.1	Services	[Line Graph]	3.2
Call Logging	[Line Graph]	3.7	Discontinue Account	[Line Graph]	3.0

- In attempt to isolate this issue, Knoa generates a report to investigate if this issue is tied to a specific supervisor, call type, screen or trainer.
- We notice that the agents experiencing the greatest number of errors are associated with two trainers; Frank Johns and Allen Smith

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### 5. Capture Undocumented Innovation

**Leveraged Agent-invented operational efficiency to generate annual recurring productivity gain valued at £1,500,000.**

- Sales Associates at one UK call centre were significantly more productive in orders /day
- Knoa's utilisation statistics and workflow information showed those sales associates had 'invented' a more effective and efficient way of using the application.
- Company implemented this new process as standard practice at all call centres, improving the productivity of 300 call centre associates by 25%
- The annual savings of 75 FTE call centre associates is: £1,500,000.
- BT estimates a one-time revenue gain of £1,332,000
  - .5 % of the annual revenue of the impacted sales associates.
- Plus associated Customer Experience Impact of more efficient process

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### Really Neat Stuff!

**And, I can see how it can deliver results**

- Reduce AHT
- Improve CSAT
- Increase FCR
- Improved Productivity
- Reduce Operations Costs
- Reduced Support Costs

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■ Thank You for your time today.



Email: [info@knoa.com](mailto:info@knoa.com)  
Online: [www.knoa.com](http://www.knoa.com)

If you'd like to learn more, feel free to contact me directly, as well:

Lori Wizdo  
Vice President  
Knoa Software  
212-807-9608 x 6100  
[lwizdo@knoa.com](mailto:lwizdo@knoa.com)



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