

IBM Operations Management

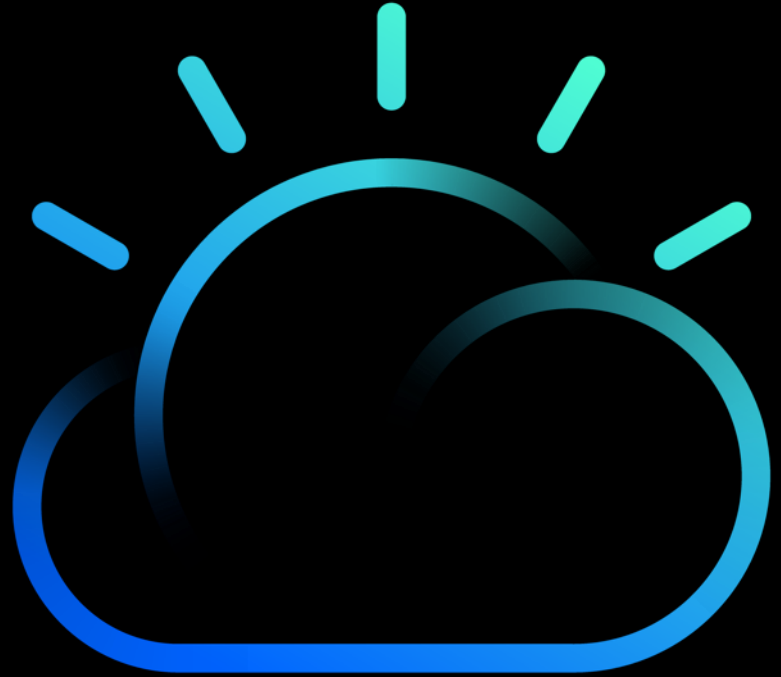
Telecom Analytics Solutions
+ Netcool

Eoin Coughlan

Head of Offering Management , TAS solutions

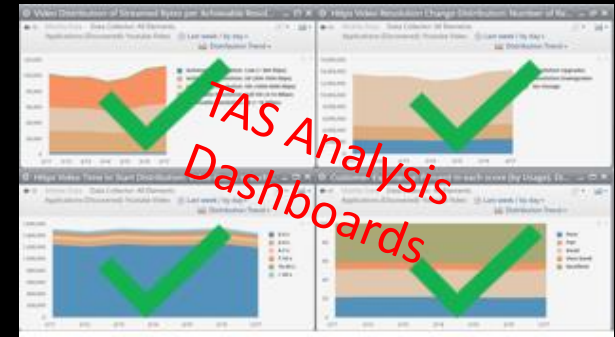
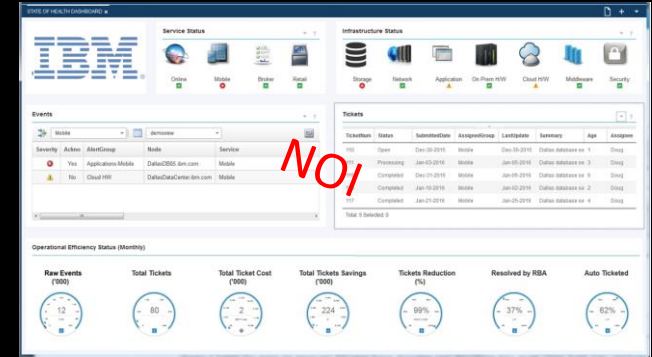
Alan Sullivan

Offering Management , TAS solutions



TAS/Netcool Integration: Leveraging Customer Experience to drive Service Assurance Response

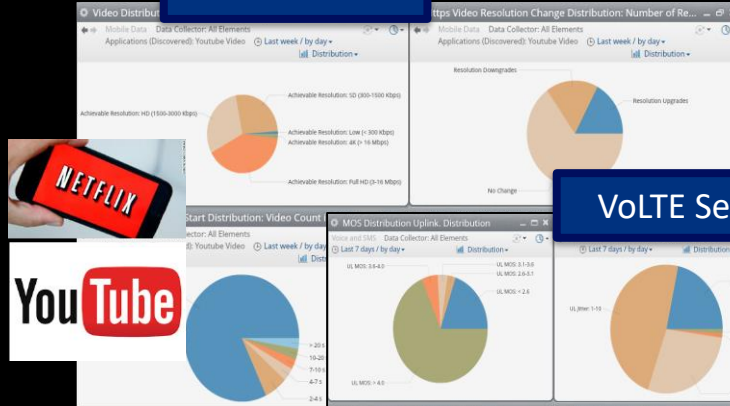
- Use Customer Experience and Service degradation information directly to drive OSS Service Assurance Response via Netcool integration
- Simple Smart Device management integrated with Netcool for OSS:
 - Video and VoLTE voice call quality for mobile networks and smart devices
- Leverage near real-time alarms to drive proactive resolutions
 - Reduce outage durations
 - Decrease OPEX in route cause investigations
 - Prevent calls into customer care
 - Improve customer satisfaction
- Start your Mobile network journey to full Customer Experience Management with a clear and simple actionable solution
 - Alarm, Identify, Prioritise, Raise Ticket for workforce management -> Intent Based Orchestration



When Service Assurance knows what is happening, they are your first defense



Video Services



YouTube

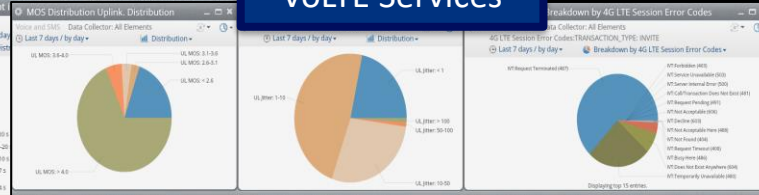


Service Operations Centre

Netcool



VoLTE Services

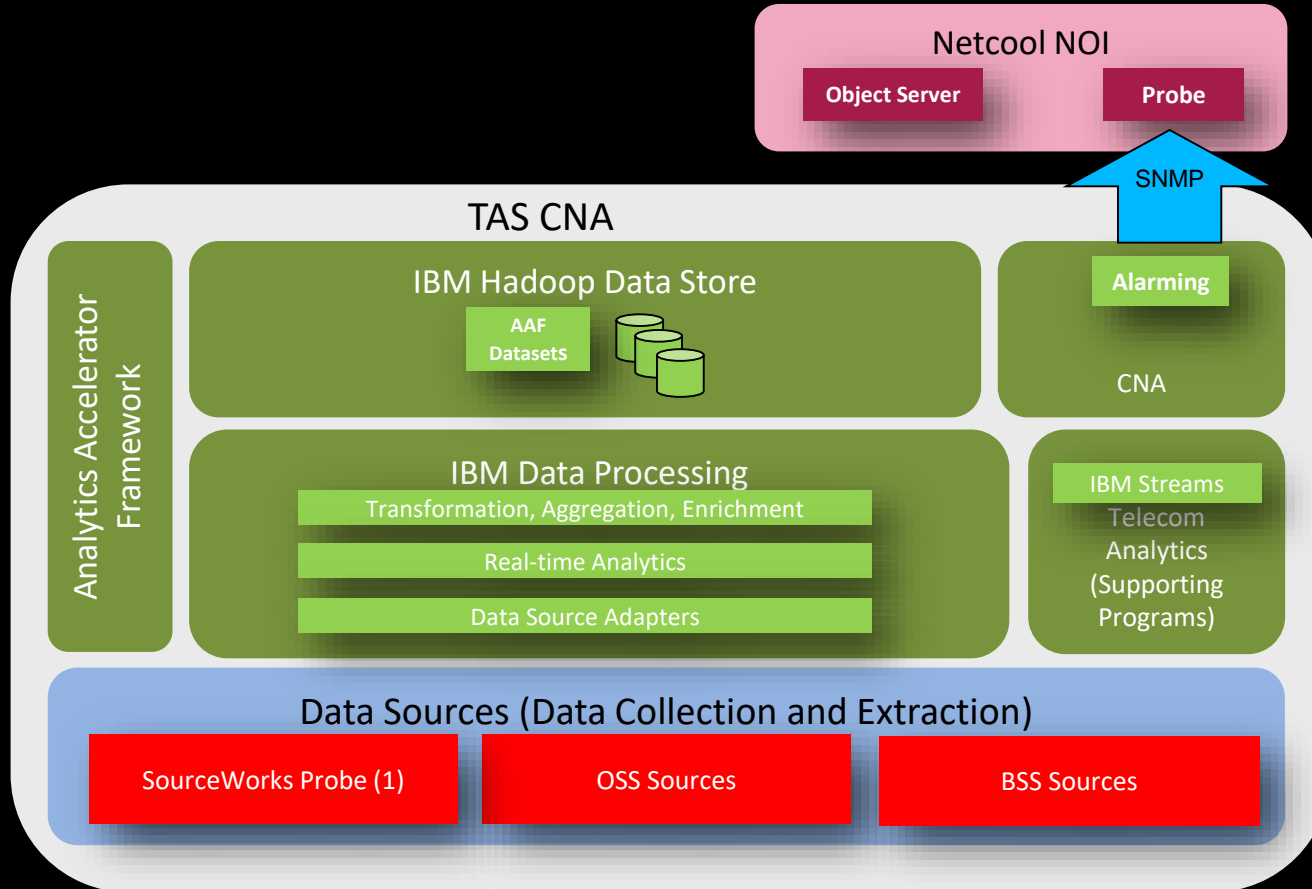


Gaming Services



- In the UK, 59% of respondents selected Network performance and reputation as an impact on their choice of network provider
- Almost half of UK respondents would switch to another provider if they are sure they get a better-quality video experience
- - IBM Institute of Business Value, Consumer Survey 2019

High Level Architecture Based on Existing Products

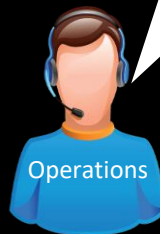


Bringing together two existing products using the SNMP interface, enables the rich customer experience based insights from TAS CNA to be integrated with existing Network Operation alarms to deliver proactive capabilities to the customer

Integration of TAS experience alarms into NOI

- Experience alarm detected in NOI from TAS CNA

Sev	Ack	Node	Alert Group	Summary	CustomText	First Occurrence	Last Occurrence	Count	Type
No	No	NETRO CELL VoLTE_78338315	Scopi	INCIDENT: (1 active alarm): NETRO CELL VoLTE_78338315	ALARM CLEARED CELL VoLTE_78338315 Netcool VoLTE RTP Co	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION Sandford	Scopi	INCIDENT: (1 active alarm): NETRO CELL_REGION Sandford	ALARM RAISED CELL_REGION Sandford CESAGGREGATIONR	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO SGW sgw_1	Scopi	INCIDENT: (1 active alarm): NETRO SGW sgw_1	ALARM RAISED SGW sgw_1 CESAGGREGATIONRANKINGSUM	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL SGW1	Scopi	INCIDENT: (2 active alarms): NETRO CELL SGW1	ALARM CLEARED CELL SGW1 : Cork : Cobh : Main St. : 41803 Ne	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION Blanchardstown	Scopi	INCIDENT: (1 active alarm): NETRO CELL_REGION Blanchardstown	ALARM CLEARED CELL_REGION Blanchardstown Netcool Non S	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	CELL_REGION: Blanchardstown	NETF	ALARM RAISED CELL_REGION Blanchardstown CESAGGREGATION	ALARM CLEARED CELL_REGION Blanchardstown Netcool Non S	8/13/19, 1:07 PM	8/13/19, 1:07 PM	2	Probl
No	No	NETRO CELL_REGION Gaeta	Scopi	INCIDENT: (1 active alarm): NETRO CELL_REGION Gaeta	ALARM RAISED CELL_REGION Gaeta CESAGGREGATIONRANK	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION Cobh	Scopi	INCIDENT: (1 active alarm): NETRO CELL_REGION Cobh	ALARM CLEARED CELL_REGION Cobh Netcool Non SSL Region	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL VoLTE_76977676	Scopi	INCIDENT: (1 active alarm): NETRO CELL VoLTE_76977676	ALARM RAISED CELL VoLTE_76977676 CESAGGREGATIONRAN	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION Malahide	Scopi	INCIDENT: (1 active alarm): NETRO CELL_REGION Malahide	ALARM CLEARED CELL_REGION Malahide Netcool Non SSL Reg	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL SGW5	Scopi	INCIDENT: (1 active alarm): NETRO CELL SGW5	ALARM RAISED CELL SGW5 : Dublin : Castletknock : Main St. : 261	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO DEVICE IOs	Scopi	INCIDENT: (4 active alarms): NETRO DEVICE IOs	ALARM RAISED DEVICE IOs : Apple : iPhone 8 CESAGGREGATIC	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL VoLTE_78338325	Scopi	INCIDENT: (1 active alarm): NETRO CELL VoLTE_78338325	ALARM CLEARED CELL VoLTE_78338325 Netcool VoLTE RTP Co	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL SGW2	Scopi	INCIDENT: (7 active alarms): NETRO CELL SGW2	ALARM CLEARED CELL SGW2 : Dublin : Malahide : Main St. : 3941	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION Florence	Scopi	INCIDENT: (1 active alarm): NETRO CELL_REGION Florence	ALARM CLEARED CELL_REGION Florence Netcool VoLTE RTP R	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION Castletknock	Scopi	INCIDENT: (1 active alarm): NETRO CELL_REGION Castletknock	ALARM RAISED CELL_REGION Castletknock CESAGGREGATION	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	CELL_REGION: Castletknock	NETF	ALARM RAISED CELL_REGION Castletknock CESAGGREGATIONRAI	ALARM RAISED CELL_REGION Castletknock CESAGGREGATION	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Probl
No	No	NETRO CELL VoLTE_76898326	Scopi	INCIDENT: (1 active alarm): NETRO CELL VoLTE_76898326	ALARM RAISED CELL VoLTE_76898326 CESAGGREGATIONBAN	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type



Operations

We have some video experience alarms in the Blanchardstown area. Launch investigation

In the NOI view we can see some Video Experience alarms in the Blanchardstown Region of Dublin which require investigation



Integration of TAS experience alarms into NOI

- Launch TAS Application from NOI

Event Viewer

Default Default 0 48 19 12 3 0

Enter search term

Sev	Ack	Node	Alert Group	Summary	CustomText	First Occurrence	Last Occurrence	Count	Type
No	No	NETRO CELL VoLTE_78338315	Scope	INCIDENT: (1 active alarm): NETRO CELL VoLTE_78338315	ALARM CLEARED CELL VoLTE_78338315 Netcool VoLTE RTP Co	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION Sandford	Scope	INCIDENT: (1 active alarm): NETRO CELL_REGION Sandford	ALARM RAISED CELL_REGION Sandford CESAGGREGATIONR	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO SGW sgw_1	Scope	INCIDENT: (1 active alarm): NETRO SGW sgw_1	ALARM RAISED SGW sgw_1 CESAGGREGATIONRANKINGSUM	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL SGW1	Scope	INCIDENT: (2 active alarms): NETRO CELL SGW1	ALARM CLEARED CELL SGW1 : Cork : Cobh : Main St. : 41803 Ne	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION	Scope	INCIDENT: (1 active alarm): NETRO CELL_REGION	ALARM CLEARED CELL_REGION Blanchardstown Netcool Non S	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	CELL_REGION: Blanchardstown	Scope	INCIDENT: (1 active alarm): CELL_REGION: Blanchardstown	ALARM CLEARED CELL_REGION Blanchardstown Netcool Non S	8/13/19, 1:07 PM	8/13/19, 1:07 PM	2	Probl
No	No	NETRO CELL_REGION	Scope	INCIDENT: (1 active alarm): NETRO CELL_REGION	ALARM RAISED CELL_REGION Gaeta CESAGGREGATIONRANK	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION	Scope	INCIDENT: (1 active alarm): NETRO CELL_REGION	ALARM CLEARED CELL_REGION Cobh Netcool Non SSL Region	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL VoLTE_76977676	Scope	INCIDENT: (1 active alarm): NETRO CELL VoLTE_76977676	ALARM RAISED CELL VoLTE_76977676 CESAGGREGATIONRAN	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION	Scope	INCIDENT: (1 active alarm): NETRO CELL_REGION	ALARM CLEARED CELL_REGION Malahide Netcool Non SSL Reg	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL SGW5	Scope	INCIDENT: (1 active alarm): NETRO CELL SGW5	ALARM RAISED CELL SGW5 : Dublin : Castleknock : Main St. : 261	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO DEVICE IOs	Scope	INCIDENT: (1 active alarm): NETRO DEVICE IOs	ALARM RAISED DEVICE IOs : Apple : iPhone 8 CESAGGREGAT	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL VoLTE_78338325	Scope	INCIDENT: (1 active alarm): NETRO CELL VoLTE_78338325	ALARM CLEARED CELL VoLTE_78338325 Netcool VoLTE RTP Co	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL SGW2	Scope	INCIDENT: (1 active alarm): NETRO CELL SGW2	ALARM CLEARED CELL SGW2 : Dublin : Malahide : Main St. : 3941	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION Florence	Scope	INCIDENT: (1 active alarm): NETRO CELL_REGION Florence	ALARM CLEARED CELL_REGION Florence Netcool VoLTE RTP R	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	NETRO CELL_REGION Castleknock	Scope	INCIDENT: (1 active alarm): NETRO CELL_REGION Castleknock	ALARM RAISED CELL_REGION Castleknock CESAGGREGATION	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type
No	No	CELL_REGION: Castleknock	NETF	ALARM RAISED CELL_REGION Castleknock CESAGGREGATIONRA	ALARM RAISED CELL_REGION Castleknock CESAGGREGATION	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Probl
No	No	NETRO CELL VoLTE_76888326	Scope	INCIDENT: (1 active alarm): NETRO CELL VoLTE_76888326	ALARM RAISED CELL VoLTE_76888326 CESAGGREGATIONBAN	8/13/19, 1:07 PM	8/13/19, 1:07 PM	1	Type

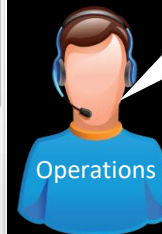
Launch TAS

Information... ↑I

Journal... ↑J

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


Operations

Let me launch the TAS application and take a look

The Operations engineer can launch straight into the TAS CNA Application to investigate the reasons behind the alarm



[illegible]

Operations



Thank you!

