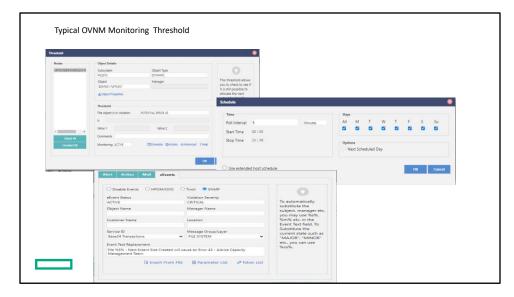
OVNM & OVNPM – HPE NonStop Manageability P	roducts
	_
DataEdge for HPE NonStop	
Streaming Analytics & Monitoring for Financial Tra	ansactions
Paul Davies – Product Manager (ESQ)	Confidential Authorized 1 VNUG -25 th Oct 2023

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What is OVNM ?
OVNM (NonStop Management Agent) is an integrated set of modules running on the Nonstop. It will manage HPE NonStop servers and will provide direct integration into various Enterprise Management solutions should they be available.
The Modules Provide:
Event Management Object Management
There is no requirement to have an Enterprise Solution in place for deployment of OVNM.

	OVNM - Object Configuration Client (OCC)
	Easily Maintained Monitoring Thresholds
	Tailored EMS Alert Messages
	Controlled Monitoring
	EMS Subsystem and User Application Management and Automation
	Automated Recovery Actions
	E-mail Escalations
	Group and Subgroup Management of Objects
	Auto Maintenance Facility
	Check Device / Application Status after any Reload – ensuring what should be up and available Actually is.
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This Threshold will check for any file where the next extent created may cause a Disk Full condition.

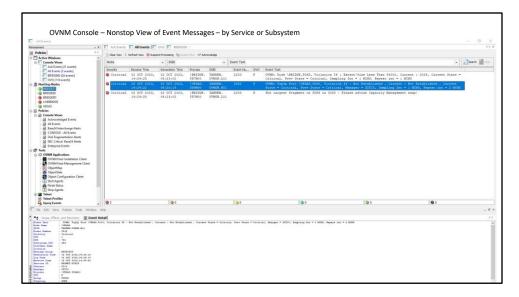
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E ^{III} RDF DF SAFEGUARD IIII SCHOOLER DS SPOCLER SSIDAGE SSIDAGE DI TAPE			or con	Apply	

User defined commands or the user can switch off a Group/SubGroup of Objects, for example Base24 is closing – switch off monitoring for Base24.

Actions could also be based upon the number of times a specific event has been seen.

	01	ojectiviap	 Objects in Violation at 	Subsystem	or Service Lev	el				
HPE ObjectMap									Subsystems Legend	Help III supera
al 🗸 571 Tatal Objects				C Severity	Node	Subsystem	Object Type	Threshold	Object	Manager
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	CLIM-IF 🔷	DATA-INT.	LINK PULSE STATUS IS NOT AVAILABLE	NORMAL	(BRIDGE(BRIDGE60)	DBK	DISK	PERCENT FULL	SSYSTEM	0
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Monitoring Threshold violations at a glance.



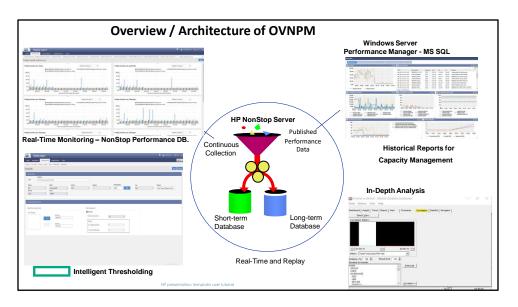
Visibility of EMS events across all NonStop systems and highlights which Events are being sent to the Enterprise – should one be connected.

	Enterprise Management Systems. from NonStop to any Enterprise Management Server.
HP NonStop Server	Tivoli / Netcool / Interlink – BES / SNMP TRAP
HPE NonStop SNMP Agent	Management Server's.
Unifies TS/MP-TM/MP	Actions Netcool Server Messages Netcool Server
Comm. Protocols NSK/OSS	Micro Focus OMU Server

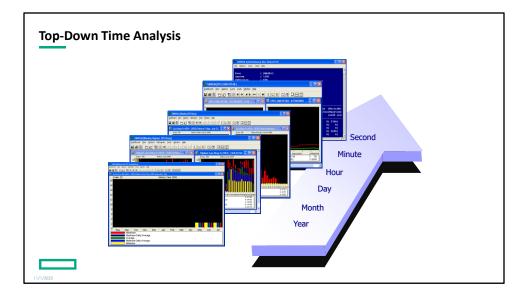
OVNM can format EMS Events and dispatch these directly from the NonStop as SNMP (Inform) Traps to any Enterprise Server that is available.

OVNM does not require an Enterprise Server to be available.

OVNPM – N onStop P erformance M anagement Agent.	
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Historical Performance Data stored on the NonStop and can also be published into a SQL database where it is automatically aggregated and can be graphically displayed with Data Analyser or other business tools like Grafana.

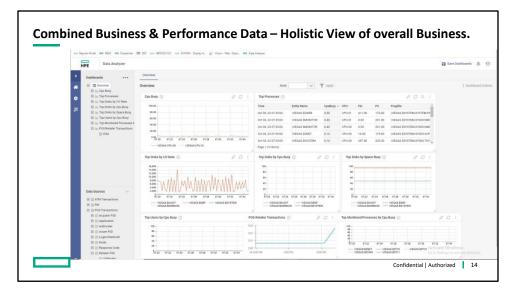


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1100	Tin.	Name	Buoy Time %	Avr Buny Time's	Prs Time	Pri Oler	Misg Sent		lug Rev	Cur Page	Page Fault		User Id	Program		Hometerm	Creat Time
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IDGE.01	911	SZPNH-p	2.5	3.4	001d : 09h	199	0	768	22799	7779		0	255,255	SSYSTEM. SYSCENS			042d : 17h
RIDGE.00	414	SZPNS-p	2.1	1.7	003d : 09h	199	0	8	22210	203.		0	255,255	SSYSTEM SYSTEM			191d : 16h
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NDGE.01	296		0.7	0.8	22h : 25m	255	0	0	0	1		0	255,255	SSYSTEM, SYSIZ, TSMSGIP			191d : 16h
IDGE.00	263	SZFM00	0.6	0.2	19h : 28m	199	0	1	0	130		0	255,255	SSYSTEM.SYSEE.OSSFM			191d : 16h
RIDGE.00	0	SMON/TOR	0.4	0.3	15h : 20m	201	0	132	7086	12		0	255,255	SSYSTEM.SYSIZ.NMONTOR			191d : 16h
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RIDGE.01	264		0.3	0.0	18h : 47m	255	0	0	0	1		0	255,255	SSYSTEM.SYS02.TSMSGIP			191d : 16h
R10GE.01	379	SQA-p	0.3	0.9	18h i G3m	220	0	304	3408	2151		0	255,255	\$\$YSTEM.SYSDLTSYSDP2			191d : 16h
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RIDIGE.00	294		0.2	0.5	16h : 32m	255	0	0	0	1		0	255,255	SSYSTEM, SYS02, TSM5GIP			191d : 16h
RIDGE.00	550	\$NG100	0.2	0.4	01h : 44m	160	0	3599	3	2460		0	0,79	./jdk180_80/bin/oss64/java			029d i 21h
ND GE.00	217	\$\$U,00	0.2	0.0	04m : 56s	160	0	3787	2	3008		0	0,10	/nssjava/jdk180_180/bin/oss	54/java	SZHOME	20h : 07m
RID GE.00	797	\$CVJ5	0.2	0.4	04h : 37m	160	0	3878	0	62000		0	30,5	/nssjava/jdk100_000/bin/java			079d : 17h
RIDGE.00	1011	00KV22	0.2	0.4	35m : 52s	160	0	3602	2	2479		0	6,10	./jdk100_100/bin/01064/java			010d : 02h
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Real time Web Access to Measure statistics – Drill down on applications to see file opens etc.

Intelligent Alarms		
	English Spani	H gunner 0 m² e
Simple and Group Alerts	east transmit Constants and Auto	ance +
Multiple Alerts) for these for the second sec	
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Integrated with OVNM	Ten long and ten l	
11/1/2023		

Alerts/ Thresholds can also have 'Trigger delays', this stops alerts happening when a Cpu may spike for a minute and then resumes to its normal percentage / rate.



Combined data from NonStop Performance to DataEdge Transaction Data – enabling Operations to see whether Transactions are completing okay and whether NonStop Performance is affecting Transaction throughput.

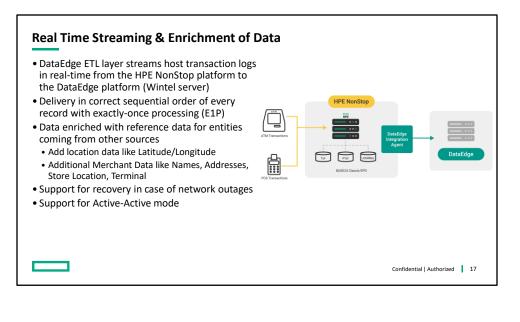
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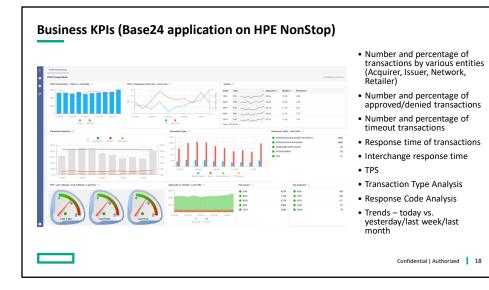
DataEdge for HPE NonStop

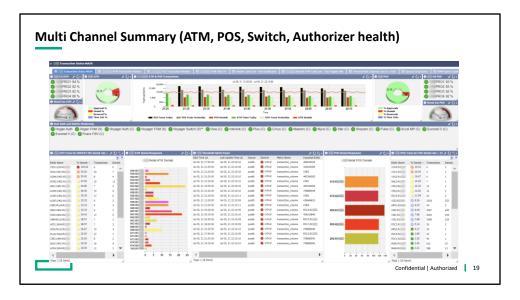
- Data Integration and Streaming Analytics platform
 - Ingest, clean, enrich a variety of data
 - Perform analytics
 - Provide operational business intelligence to make real time decisions
- Support for ingestion of disparate data streams with Statistics calculations at high volumes, velocity and variety
- Modern service-oriented architecture
- Responsive User Interface with focus on mobility and different UI form factors
 Packages for ATM and POS financial
- Packages for ATM and POS financial transactions applications that run on the HPE NonStop (ACI BASE24 Classic/EPS, FIS Connex, etc.)
- APIs for integration



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New Metric	Entity Type N		×	 Centralized user interface to easily configure metrics, formulas, entities, data sources*, and connections*
Interchange Resp Time Description Type of Metric	Choose Sour		~	 Intuitive and user-friendly area that requires minimal technical skills and
Sum of column values		seResponseTime	~	imposes quick data builds
Track norms for this metric Apply Filters (Optional) reversa@cason	is not equal to	4021	Θ	 Save time by replicating, altering, and ever deactivating metrics or entities directly in the user interface
🗊 transCode 👻	is not one of	1420,1421,1430,1440	Θ	 Predefined metrics offered out-of-the-box
interChangeResponseTit ~	is greater than	٥	Θ	 Define custom metrics for different entities
Add Filter Condition Filter Logic All of the conditions are met (AND)	×			 Improve operational efficiency by cloning a editing user-defined custom metrics
Show Preview		Cancel	Save	

Applying filters to ensure that Metrics being monitored are tuned to specific fields required.

Metric History	× 1.6M			
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POSTXN CardType V Total Transactions	✓ 12M 22			
Aggregation Intervals	9 1.0M	\wedge		1
1 Hour v 60 recent intervals	× 50 0.0M			
Metric Display	TE D.6M			
By Date	• 0.4M			
instance Name ①	0.2M		June 1	
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	03:13 08:4	6 1420 19:53 01:26	07:00 12:33 18:06 23:40	05.13 10.46
Range Using Standard deviation		Mashercard Mashercard De	ebit VISA VISA Debit	
	2017-05-25-00:00			2017-05-27 12:00
	instance	Timestamp	Value	
	Preview > Mastercard (61 items)			
	Mastercard Debit (61 items)	1		
	> VISA (61 items)			

Define Metrics that you wish to monitor then view the data that will be extrapolated from the incoming Transactions and see if this matches your requirements, then choose to deploy the metric monitoring.

			0-0	AIH Total / approval / o				Jul 05, 21, 21:30:00 - Jul 05, 21, 22:16:45				10-08				
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140			 Norms are metric normal values based on a set oprofiles
Domitis			 Out-of-the-box norms profiles are based on day the week and hour of the day to capture cyclic patterns
20 2114-01-08-04.33	2010-01-06 10.06 2010-01-06 10.48 2010-01-06 21 13 NOTE: Range Ontain	3256-61-67-83-86 3255-61-67-88-20 3255-67-67-13-88	Choose metrics to track under norms profiles
2016-01-06-00-00		00940383535600	
· B/TP (51 iters)	# Timestamp Value Value	MORM Range	 Norms are updated daily to include fresh data in
SUMP (ST NORM)	2016-01-08 15:00:00.000 19:33	17.11-22.85	the model
81/19	2016-01-08 14:00:00:000 14	8.78 - 16.26	une mouer
9U/P	2016-01-08 12:00:00.000 7.17	2.19-0.11	
84749	2016-01-0812:00:00.000 4.17	1.26-4.0	 Anomalous values for a metric can be monitored
8079	2016-01-08 11:00:00.000 2:42	-0.2 - 3.01	
87/19	2016-01-08 10:00:00:000 3:42	-0.194.26	detected, and alerted on for percentage or
SUVP	2016-01-08 09:00:00.000 5	-0.79 - 8.05	absolute deviations from the norm
style	2016-01-08 08:00:00.000 10.05	-0.19 - 14.8	
\$1/1P	2016-01-08 07:00:00.000 18:5	0.07 - 20.37	
SURP.	2016-01-08 05:00:00:000 22:42	4.93 - 25.12	
		87-486	
ikzwi?	2016-01-03 05:00:00:000 33:33	0.7 40.0	
81779 81779	2116-01-08 05:00:00.000 33:33 2016-01-08 04:00:00:000 48:00	15.84-64.43	
8009 8009 8009 8009 8009			

Norms are based on profiles and DataEdge can use the Normal profile to detect any Deviations from the Normal rates, therefore if Friday lunch time TPS rate for a FIID like Visa deviates by a certain percentage then DataEdge will alert to say that TPS rate is not the expected value for a Friday and there is a deviation from the normal rate by X%.

overall alerts													· C & -
Time	Alert ID	Entity Name	Entity Type Name	Threshold Name /.	Repeat Count	Severity	Metric Name	Metric Value	Norm Value	Deviation %	Minimum Sample Net	Ack Time	× 7
Jul 06, 21 00:50:38	6555008	0300-R1	Issuer	approval_level_violation_t0min_stats	2	- warning	approvals_percentage	70.59	08.95	-18.36	False	ALC: THE	
Jul 06, 21 00:55:35	6555033	PLU2:R2	Issuer	approval level violation 10min stats		o ortical	approvals_percentage	54.55	81.51	-25.95	False		<u> </u>
34 06, 21 01:00:37	6555051	STR4.82	Interchange#IID	approval_level_violation_5min_stats	0	 warning 	approvals_percentage	42.86	62.69	-19.83	False		
3ul 06, 21 01:00:37	6555050	ACH1:R2	InterchangeFUID	approval_level_violation_Smin_stats	0	o warning	approvals_percentage	62.50	82.42	-19.92	False		
Jul 06, 21 00:15:43	6554829	PLU4:R1	Issuer	volume_level_violation_10min_stats	9	o ortical	transaction_volume	2.00	28.50	-92.98	False		
3ul 05, 21 23:15:40	6554513	ACH3:R1	Issuer	volume_level_violation_t0min_stats	21	o oritical	transaction_volume	4.00	41.06	-90.26	False		
34 05, 21 23:40:37	6554623	ACM2:R1	Issuer	volume level violation 10min stats	16	o ortical	transaction_volume	4.00	38.31	-89.56	False		
Jul 05, 21 22:05:32	6554249	CR1:R1	Issuer	volume level violation 10min stats	35	oritical	transaction_volume	5.00	34.56	-85.53	False		
Jul 06, 21 00:05:37	6554765	0300:R1	Issuer	volume_level_violation_10min_stats	11	oritical	transaction_volume	17.00	30.17	-43.65	False		
34 06, 21 01:00:37	6555152	0615:81	Issuer	volume level violation 10min stats	0	ortical	transaction volume	16.00	22.54	-29.02	False		
34 06, 21 00:20:35	6554856	0826-R1	Issuer	volume_level_violation_10min_stats		oritical	transaction_volume	16.00	23.25	-31.18	False		
Jul 06, 21 00:25:37	6554876	0984:R1	Issuer	volume_level_violation_10min_stats	7	oritical	transaction_volume	20.00	28.83	-30.64	False		
3ul 05, 21 21:40:35	6553977	STR4.R2	Issuer	volume_level_violation_10min_stats	40	oritical	transaction_volume	9.00	40.50	-77.78	False		
3ul 06, 21 00:20:35	6554857	ACF1:R2	Issuer	volume_level_violation_10min_stats		oritical	transaction_volume	5.00	22.20	-77.47	False		
Jul 05, 21 23:25:35	6554554	PLU2:R2	Issuer	volume_level_violation_10min_stats	19	ortical	transaction_volume	11.00	24.33	-54.79	False		
Jul 05, 21 23:35:40	6554604	CIR3:R2	Issuer	volume_level_violation_10min_stats	17	oritical	transaction_volume	10.00	35.80	-72.07	False		
Jul 06, 21 00:35:42	6554930	ACF4:R2	Issuer	volume_level_violation_10min_stats	5	oritical	transaction_volume	8.00	24.79	-67.73	False		
Jul 06, 21 00:55:35	6555694	PLU4:R2	Issue:	volume_level_violation_10min_stats	1	 warning 	transaction_volume	22.00	27.00	-18.52	False		
Jul 06, 21 00:35:42	6554931	ACH1:R2	Issuer	volume_level_violation_10min_stats	5	oritical	transaction_volume	18.00	39.26	-54.16	False		
Jul 06, 21 00:30:45	6554905	ACH1:R2	Issuer	volume_level_violation_10min_stats	6	oritical	transaction_volume	29.00	52.15	-44.39	False		
3ul 06, 21 00:45:41	6554977	0288:82	Issuer	volume_level_violation_10min_stats	3	oritical	transaction_volume	13.00	22.13	-41.27	False		
3ul 05, 21 19:40:39	6553173	0636:82	Issuer	volume_level_violation_10min_stats	64	oritical	transaction_volume	14.00	24.58	-43.05	False		
Jul 05, 21 21:55:37	6554072	0125:82	Issuer	volume_level_violation_10min_stats	37	oritical	transaction_volume	14.00	23.17	-39.57	False		
Jul 05, 21 21:30:39	6553914	0815:R2	Issuer	volume_level_violation_10min_stats	42	🔘 critical	transaction_volume	11.00	21.33	-40.44	False		
Jul 05, 21 23:10:38	6554479	ACM3:R1	InterchangeFIID	volume_level_violation_5min_stats	22	O oritical	transaction_volume	2.00	20.53	-90.26	False		
Jul 06, 21 00:15:43	6554824	ACM2:R1	InterchangeFIID	volume_level_violation_5min_stats	9	oritical	transaction_volume	3.00	19.15	-84.34	False		
3ul 05, 21 22:00:40	6554113	STR4:R2	InterchangeFIID	volume_level_violation_5min_stats	35	Oritical	transaction_volume	7.00	20.25	-65.43	False		
Jul 06, 21 01:00:37	6555049	ACF1:R2	InterchangeFIID	volume_level_violation_5min_stats	0	ortical	transaction_volume	5.00	11.10	-54.94	False		
3ul 06, 21 00:55:35	6555028	ACF4:R2	InterchangeFIID	volume_level_violation_5min_stats	1	oritical	transaction_volume	3.00	12.39	-75.80	False		*
Page 1 (31 literus)													

Monitoring via Alert Policies	Edit Alert Policy	×	
1 Create sophisticated threshold conditions	Polity bridge Aler Context Aler Context Image: Context Computer Sequence Sequence Sequence Sequence Templane Context Computer Sequence Sequence Sequence Sequence Templane Context Computer Templane Context Computer Sequence Sequence	-	
2 Craft custom alert messages	Revealed to the second	2 Brook from Template	No per analysis email because an exist in the inspection of his following advanture by ensuring and the second se
3 Distribute alert messages to individuals or groups		Cancel Stree	R Medic Ind Threadwalk Horic and a Stare Than some by 0. % Threadwalk Horic and a Stare Than Some Media Network (In: 22, 37, 2022) 2026 (In: Media Network (In: 22, 37, 2022) 2026 (In: Media Network (In: 12, 37, 2022) 2026 (In: 12, 37, 2022) 2026 (In: 12, 37, 2022) 2026 (In: 12, 37, 37, 37, 37, 37, 37, 37, 37, 37, 37
			Confidential Authorized 25

Alerts to various adapters, SMS / EMAIL / SNMP / NonStop EMS / Windows Event logs.

	NAMON NAMON NAMON *** NAMON ***	 Control the data repair process Rebuild data at any time with improved on-demand repair capabilities Configure aggregation intervals for each entity type Manage the retention requirements for your data in the user interface
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Repair is a function to recover transactions possibly due to down time, the Repair engine can read in earlier transactions whilst processing current transactions. The repair process will also adjust statistics if Transactions arrive late and aggregation has already taken place for an interval, so any missed / late transactions will always get included in Statistic periods even if that period had already been aggregated.

Powerful Search Engine

 With Elasticsearch support (optional) for extended raw data storage

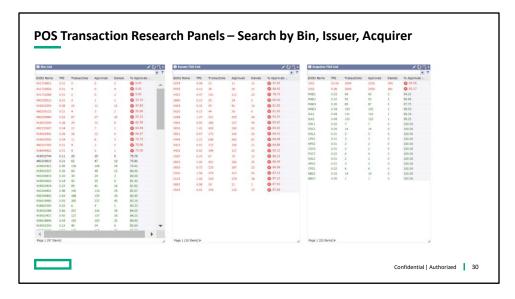
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SM	M002	P	R01		S1AS13BA		21214582560076	CIKAMPEK	000000000000000000000000000000000000000	ID
SM	M002	P	R01		S1AS138A		21214582560076	CIKAMPEK	000000000000000000000000000000000000000	ID
DR3	M009	PI	R01		S1AM134D		21214582560041	CIREBON		ID
TMB	M002	P	KO1		S1AP12ET		21214582560027	BEKASI	000000000000000000000000000000000000000	ID
TMB	M002	P	R01		S1AP12ET		21214582560041	BEKASI	000000000000000000000000000000000000000	ID
DR3	M00B	PI	R01		S1AD0J6Z		21214582560048	JAKARTA		ID
DR3	M002	PI	101		STAM1011		21214582560050	BATAM		ID
DR3	M009	P	101		S1AD1D0A		21214582560054	SURABAYA		ID
DR3	M002	PI	R01		STAPOOFA		21214582560048	JAKARTA		ID
DR3	MODB	PI	801		S1AD1E7E		21214582560048	BOGOR		ID
DR3	MODB	PI	101		S1AD1C3I		21214582560075	SUKABUMI		ID
DR3	M009	PI	801		S1AP108U		21214582560084	PEKANBARU		ID
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Dashboard & KPI Samples	
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sty Name - % De			Dentifi	341 06, 22 00:40:00		ortical	transaction_volume	peado	Act Fed Nede	2,83,92	percentage deviation from NDRM: -25.75;Reg nen sample:50	+ True	-25.75	5	Actal POS Denas
3.R2 0 1			258	Al 06, 21 00:40:00		 critical 	transaction_volume	plado	Acq Fed Node	2.K1 9.2	percentage deviation from NORM: -17.07;Reg min sample.50	 True True 	-17.07	3	
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52-K1 07 51-K2 00 61-K2 00 61-K1 00	196 204 100 318			• 4 Page 1 (10 Danie)											

Here the normal rate is displayed along with the current rate.



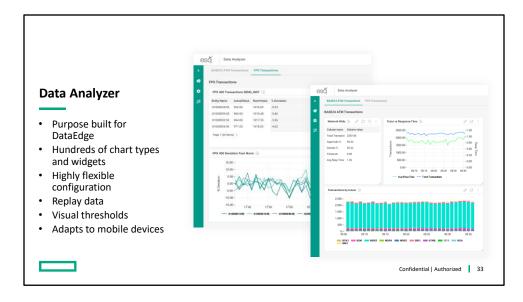




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Application Health Monitoring • Troubleshooting & diagnostics made easy	Application Overview O to the total low O to the total low O total
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DataEdge can monitor its own performance and alert, taking into consideration things like database capacity, insertion rates and component status.



	+ All Data - API2 NEW	Commercia (D) Examplies (D
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Deliver Stats via API	<pre>2 facture(1) "Nor",</pre>	#", "1966/#": "2029-11-0-23-09-08-08#",
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Search Transactions API	PDI Implement/initialities Name Automate Same 10 Same 10 Name Automate Same 10 Same 10 Name Same 10 Same 10 Same 10 Name Name Same 10 Same 10 Name Name Same 10 Same 10 Name Name Name Same 10 Same 10 Name Name Name Name </th <th>6 Gayrill, 1991 +</th> <th></th> <th></th>	6 Gayrill, 1991 +		
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Q&A	
Thank you	
Paul. Davies@ESQ. Com	
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