

GAVS

Enabling a Zero Incident Enterprise TM

Rapid Digitization and Impact on IT Operations



A company's ability to compete in the emerging digital economy will require faster-paced, forward-looking decisions



Application downtime costs Fortune 1000 firms \$1.25B to \$2.5B per year

- The avg. cost of infrastructure failure is \$10,000/hr.; 35% of companies take 1-12 hr. to fix an infrastructure outage
- 17% need 2-7days to resolve an infrastructure failure

During an outage, 60% of companies took more than 15 min. to identify the team responsible for an outage

Data losses & outage cost enterprise \$1.7 Trillion globally

Enterprise IT teams are experiencing a significant amount of repeat IT incidents. More than a quarter of incidents had occurred earlier for 50% of companies

Modern enterprises need actionable and predictive insights to better manage vast IT operational datasets



EXPLORE THE
POWER OF
AUTOMATION
THROUGH



**ZERO
INCIDENT
FRAMEWORK™
(ZIF)**

Enabling
ZERO INCIDENT ENTERPRISE™

AIOps based TechOps platform that enables proactive detection and remediation of incidents helping organizations drive towards a *Zero Incident Enterprise™*

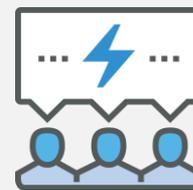
Outcomes Delivered



Single Pane of Command
to efficiently run
IT Operations



Proactive IT Operations
Led by predictive insights,
min. 24hrs. ahead of time
with over 90% accuracy



~40% reduction in incidents, and reduced incidents/user per month



~60% reduction in Mean Time to Repair (MTTR)



~ 50% reduction in overall IT Operations costs



Agile monitoring & elimination of Digital Dirt, driven by auto discovery

Zero Incident Framework™ – Solution Components



DISCOVER

MONITOR

ANALYZE

LEARN

PREDICT

REMEDiate

Auto-discover
all mission
critical
workload & IT
assets

End-to-end
enterprise
performance
monitoring

Analyze &
correlate
alerts/events
across tools

Pattern based
Deep and
Reinforced
Machine
Learning

Predictive
techniques to
prevent
outages

Prescriptive
remediation
with minimal
or no manual
intervention

Comprehensive set-of features to enable a Zero Incident Enterprise™



Discover



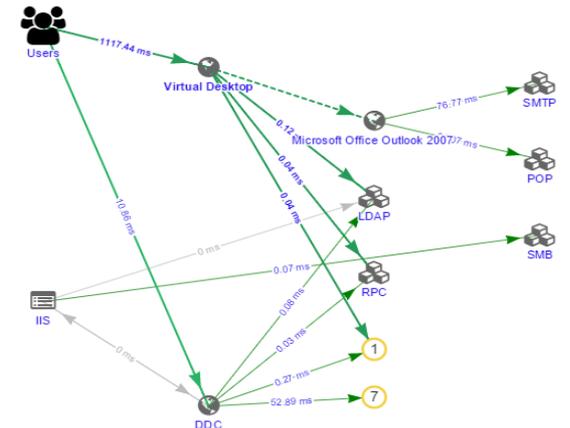
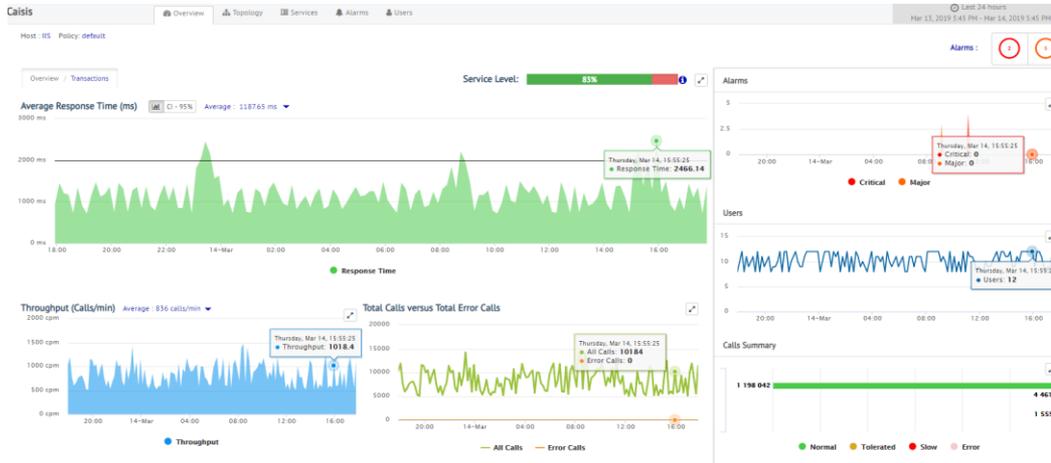
Applications Overview

Last 24 hours
Mar 13, 2019 5:43 PM - Mar 14, 2019 5:43 PM

20 Per Page Hidden Applications

Print Search

Application Name	Instances	Service Level	Users	Alarms	Calls	Error Calls
PowerShell1	1	100%	1	0 0	3	--
MicrosoftExchangeServer	1	99%	9	0 0	13585	1
Default Web Site	1	99%	14	1533 0	607878	1202
Caisis	1	83%	12	5 2	1204058	1555



Automatic application discovery & dependency mapping - actually running right now

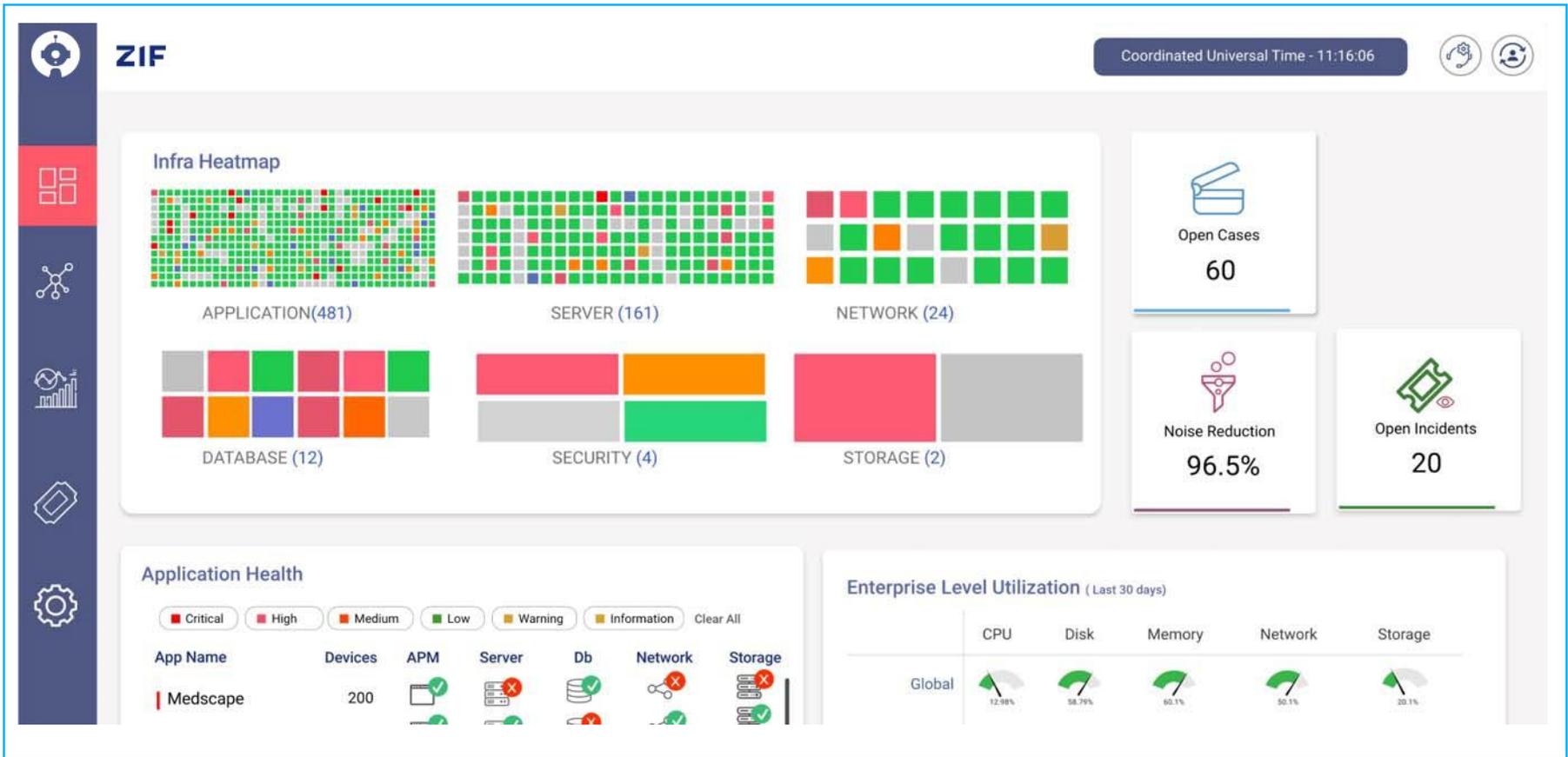


Microservices-aware infrastructure-view



Real-time topology across layers – Infrastructure to Microservices

Monitor



End-to-end environment performance management



Proactively detect exceptions based on metrics & thresholds



Business aligned metrics – Apps Health Index, User Exp. Index

Analyze

The screenshot displays a ZIF dashboard interface. At the top left, the ZIF logo is visible. The top right shows the time as 'Coordinated Universal Time - 11:16:06'. Below the header, there are navigation options for 'Raw Alerts' and 'Case Management (20,988)'. The main area contains a list of incident cards, each with a title, status, suggested technician, and various performance metrics.

Incident ID	Title	Status	Suggested Technician	Alerts	Open Cases	Resolved	Priority	SLA	ETA	Resolution %	Automation %
GAVEL120930	FAILURE & ActCode>UX</ActCode> ...	Resolved	Neil Nick	55	13	5	High	20mins	10mins	80%	95%
GAVEL122330	Database Connection Time. The average ...	Open	Viju Cammy	10	20	11	Medium	11mins	10mins	70%	85%
GAVEL120925	Node is down 10.88.84.18 ES1-BRCAJA...	Resolved	Dhara Sam	22	11	03	Medium	15mins	13mins	70%	85%
GAVEL120916	At least one HDB service of database ...	Open	Paul Pandey	09	24	16	Low	42mins	33mins	83%	95%
GAVEL134530	Alarm 'Host memory usage' on ...	Resolved	Gibbs Muni	10	20	11	Medium	11mins	10mins	70%	85%
GAVEL125567	Database Connection Time. The average ...	Open	Paul Pandey	100	32	34	High	11mins	10mins	70%	85%



Advanced Intelligent Incident Analytics (AIIA)

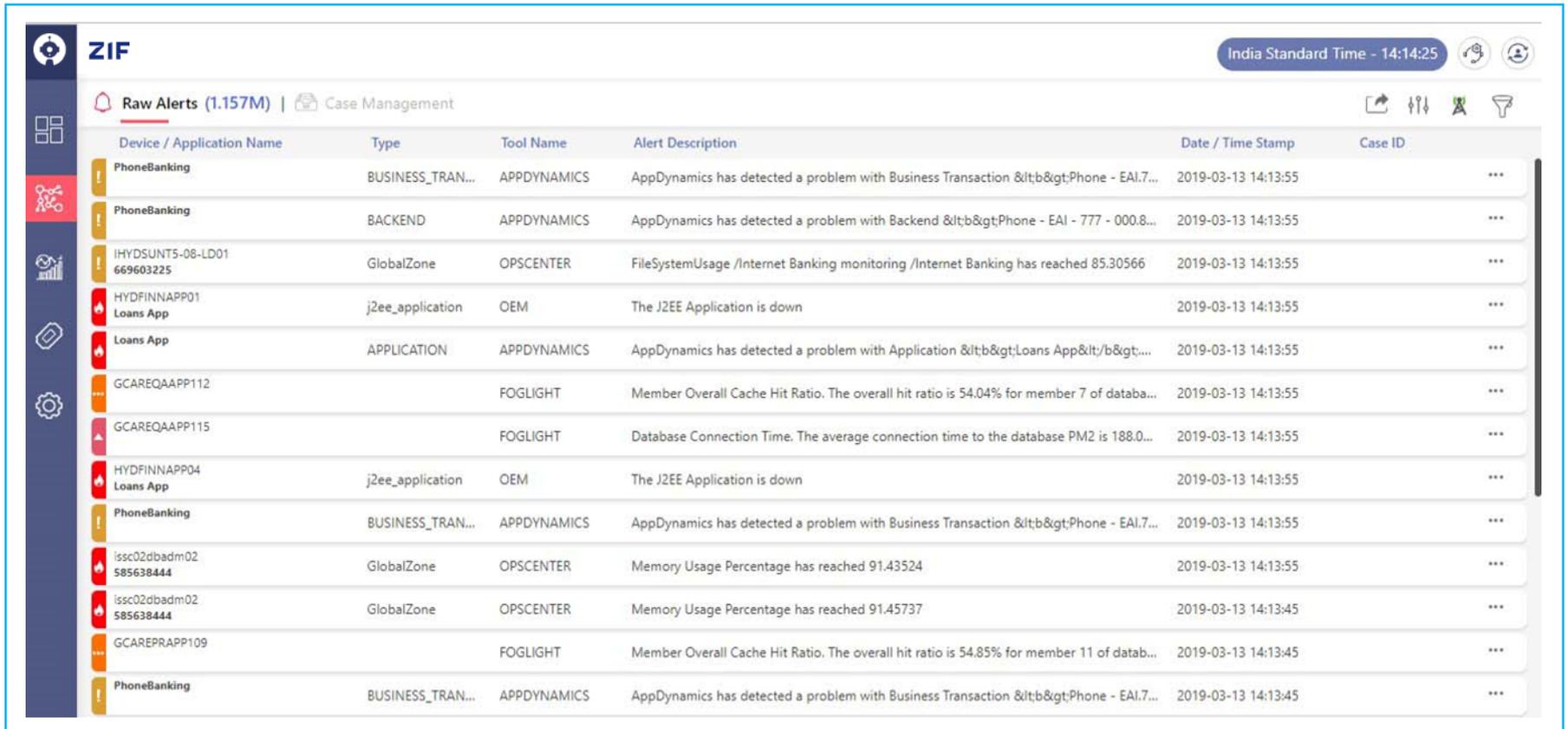


Events correlation



Root cause analysis

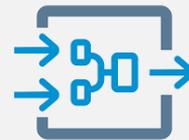
Learn



Device / Application Name	Type	Tool Name	Alert Description	Date / Time Stamp	Case ID
PhoneBanking	BUSINESS_TRAN...	APPDYNAMICS	AppDynamics has detected a problem with Business Transaction Phone - EAI.7...	2019-03-13 14:13:55	...
PhoneBanking	BACKEND	APPDYNAMICS	AppDynamics has detected a problem with Backend Phone - EAI - 777 - 000.8...	2019-03-13 14:13:55	...
IHYDSUNT5-08-LD01 669603225	GlobalZone	OPSCENTER	FileSystemUsage /Internet Banking monitoring /Internet Banking has reached 85.30566	2019-03-13 14:13:55	...
HYDFINNAPP01 Loans App	j2ee_application	OEM	The J2EE Application is down	2019-03-13 14:13:55	...
Loans App	APPLICATION	APPDYNAMICS	AppDynamics has detected a problem with Application Loans App...	2019-03-13 14:13:55	...
GCAREQAAPP112		FOGLIGHT	Member Overall Cache Hit Ratio. The overall hit ratio is 54.04% for member 7 of databa...	2019-03-13 14:13:55	...
GCAREQAAPP115		FOGLIGHT	Database Connection Time. The average connection time to the database PM2 is 188.0...	2019-03-13 14:13:55	...
HYDFINNAPP04 Loans App	j2ee_application	OEM	The J2EE Application is down	2019-03-13 14:13:55	...
PhoneBanking	BUSINESS_TRAN...	APPDYNAMICS	AppDynamics has detected a problem with Business Transaction Phone - EAI.7...	2019-03-13 14:13:55	...
issc02dbadm02 585638444	GlobalZone	OPSCENTER	Memory Usage Percentage has reached 91.43524	2019-03-13 14:13:55	...
issc02dbadm02 585638444	GlobalZone	OPSCENTER	Memory Usage Percentage has reached 91.45737	2019-03-13 14:13:45	...
GCAREPRAPP109		FOGLIGHT	Member Overall Cache Hit Ratio. The overall hit ratio is 54.85% for member 11 of databa...	2019-03-13 14:13:45	...
PhoneBanking	BUSINESS_TRAN...	APPDYNAMICS	AppDynamics has detected a problem with Business Transaction Phone - EAI.7...	2019-03-13 14:13:45	...



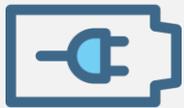
Reinforced Learning



Automatic & iterative pattern
identification

Predict

The screenshot displays the ZIF Predict dashboard interface. At the top left, the ZIF logo is visible. The top right shows the Coordinated Universal Time as 11:16:06. Below the header, there are navigation tabs for 'Opportunities' and 'Enterprise Overview'. The main content area is divided into three primary sections: 'Predicted Risk (Warning) - 07', 'Currently at Risk (Critical) - 04', and 'Processed / Void - 02'. Each section contains a grid of cards representing individual opportunities. Each card includes an 'Opp ID', a set of icons (a gear, a lightbulb, a document, and a list), and a brief description of the risk or opportunity, such as 'Cpu utilization of EPABCPV1 Device ...' or 'Device EPDSSV12 is consuming more ...'. The cards are arranged in a grid that is partially obscured by a semi-transparent overlay.



Capacity planning
& utilization



Automatic Elastic
Orchestration



Predict & Prescribe to avoid
application failure

Remediate

The screenshot displays a ZIF Case Management interface with a list of alerts and an automation configuration panel. The dashboard includes a sidebar with navigation icons, a top navigation bar with 'ZIF' and 'Coordinated Universal Time - 13:36:37', and a main content area with a list of alerts. The automation panel is open on the right, showing configuration for 'Automation - GAVEL0000021919'.

Alert ID	Severity	Subject	Time	Count	Priority	ETA	SLA	Progress	Resolution
GAVEL21919	Critical	URL Respond State - Fail	2019-02-19 11:49:01	1	Medium	20mins	24mins	20%	93%
GAVEL21884	Major	Server Up Time Status - 36 to 50 Days	2019-02-19 11:49:01	4	Medium	34mins	21mins	20%	93%
GAVEL21867	Major	Server Up Time Status - 36 to 50 Days	2019-02-19 11:49:01	1	High	21mins	21mins	21%	96%
GAVEL21844	Major	Server Up Time Status - 36 to 50 Days	2019-02-19 11:49:01	1	Medium	38mins	32mins	32%	90%
GAVEL21808	Critical	URL Respond State - Fail	2019-02-19 11:49:01	1	Medium	28mins	36mins	36%	97%
GAVEL21565	Directory Active status - In-Active	Directory Fails	2019-02-14 07:52:49	2	High	25mins	28mins	29%	92%
GAVEL21556	BC - Major	Event Monitoring - System	2019-02-14 07:52:49	1	Medium	28mins	23mins	40%	n/a

Automation - GAVEL0000021919

- * Service Category: Dynamic Resource Allocation
- * Sub Category: CPU
- Current Value: 2
- Units of Measure: Percentage

Buttons: Apply, Cancel



Seamless automation
of service actions

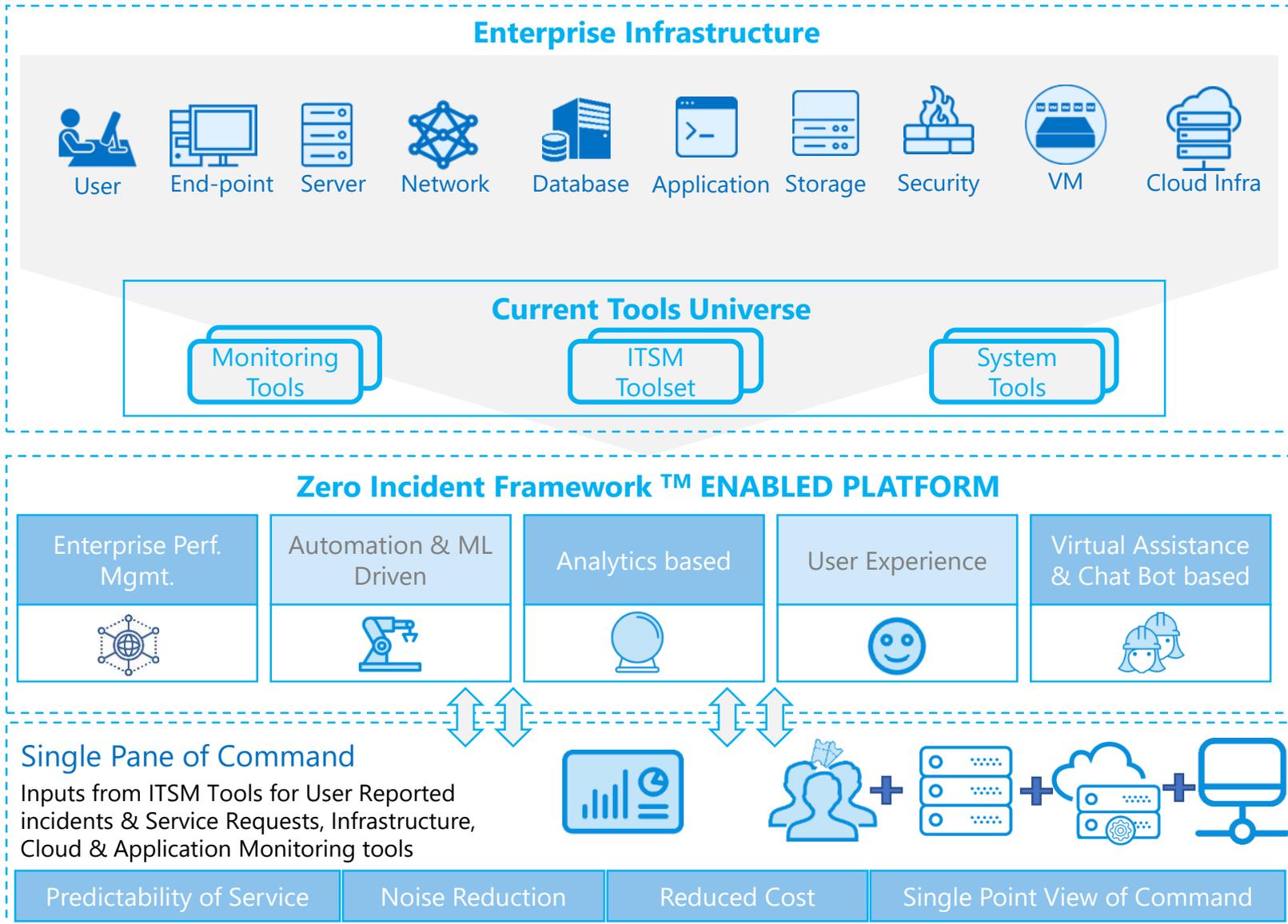


Runbook automation

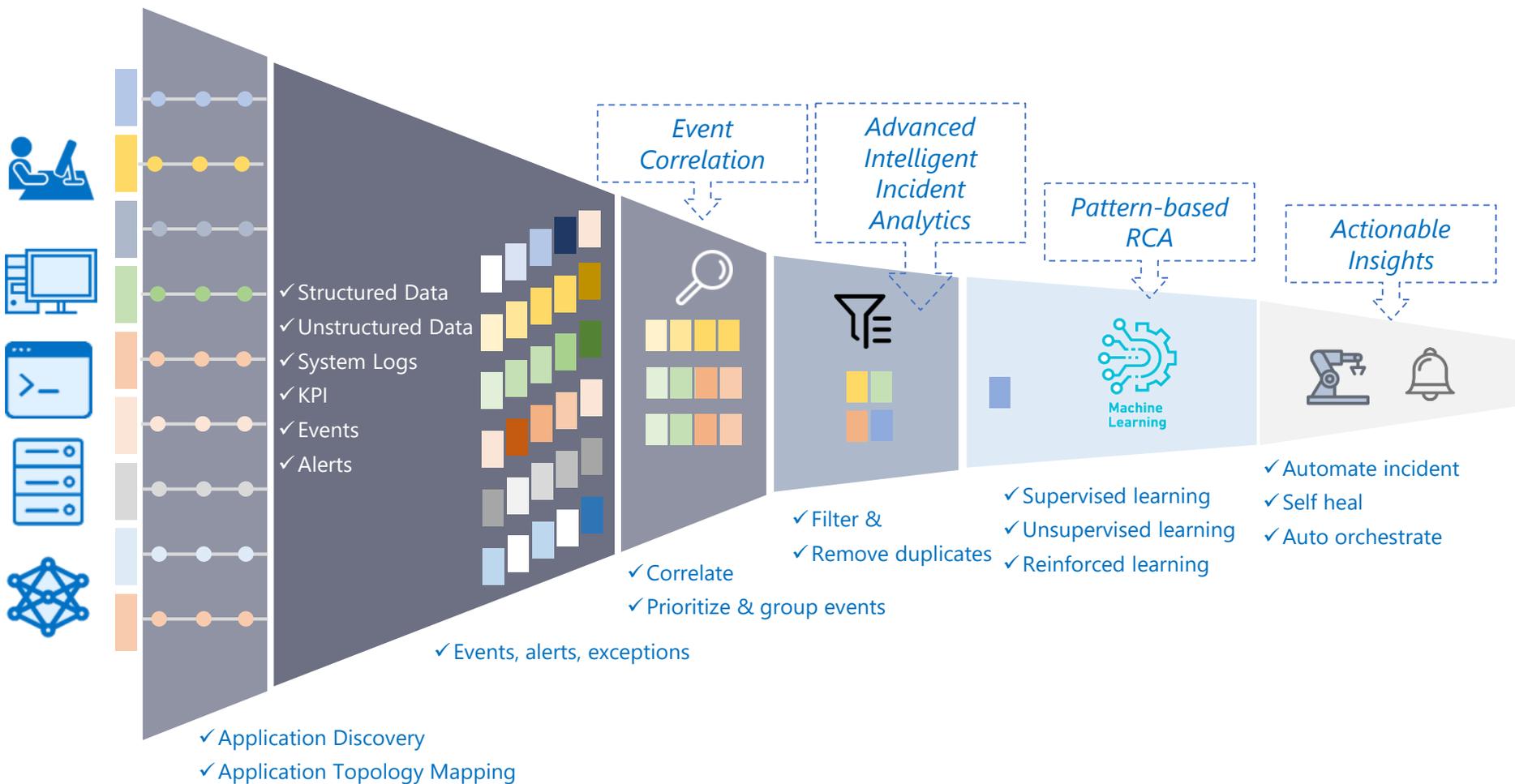


Automation of complex
workflows

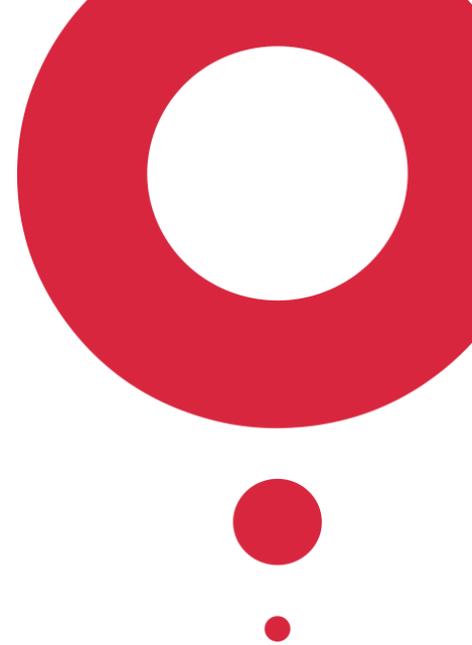
Digital Infrastructure Operations



Realizing Zero Incident Enterprise™



Success Stories



#1 – New-age ServiceDesk for a Leading Public Relations Firm



Problem Statement



3500+ employees across 67 locations; 65% millennial workforce



8,000-10,000 tickets per month, handled by a team of 30+ Agents



Poor user experience since no alignment between service metrics & business



Prolonged triage process due to roaming profiles



High Costs

Solution



Next generation digital service desk integration with social media outlets



Virtual supervisor for automated triage



Self help and resolution pushed through BOTS



Integrated view of the ticket queue



Benefits

10,000 tickets reduced to 6,000 of which 2,400 are automated
40% reduction in tickets

Service desk team size reduced from 33 to 24

30% reduction in response and resolution times

Ticket triage process reduced by 50%

Cost Reduction by over 40%

#2 – Incident Reduction through Predictive Analytics a multinational manufacturer of household cleaning supplies



Current State



5000 devices and 20+ tools across the enterprise



~29,000 raw alerts and ~4000 incidents per month



58% non actionable tickets



30+ L0/L1 team which is more than the actual need



Solution Components



End-to-end monitoring and AI-led command center



Elimination of redundant tools and capacity related alerts



Elimination of device/service up/down related

Benefits

- Reduction in \$ 2 M recurring annual cost of CA monitoring tools to \$ 1 M perpetual cost
- 97% reduction in noise alerts
- Productivity of command center increased to over 50%; reduction of team size from 26 to 11
- Identification of over 38% of capacity-related fatal alerts and 18% high priority incidents driving up the overall availability
- Increased visibility of IT operations across 160 locations



Challenges



Each application monitored by 15+ monitoring tools



Siloed operations team with no tool integration resulting in no real-time alert correlation and 3-5 days of remediation



Reactive support NOC



Currently, viewable only by the NOC & Monitoring team and lack of a complete view for Business owners



Benefits

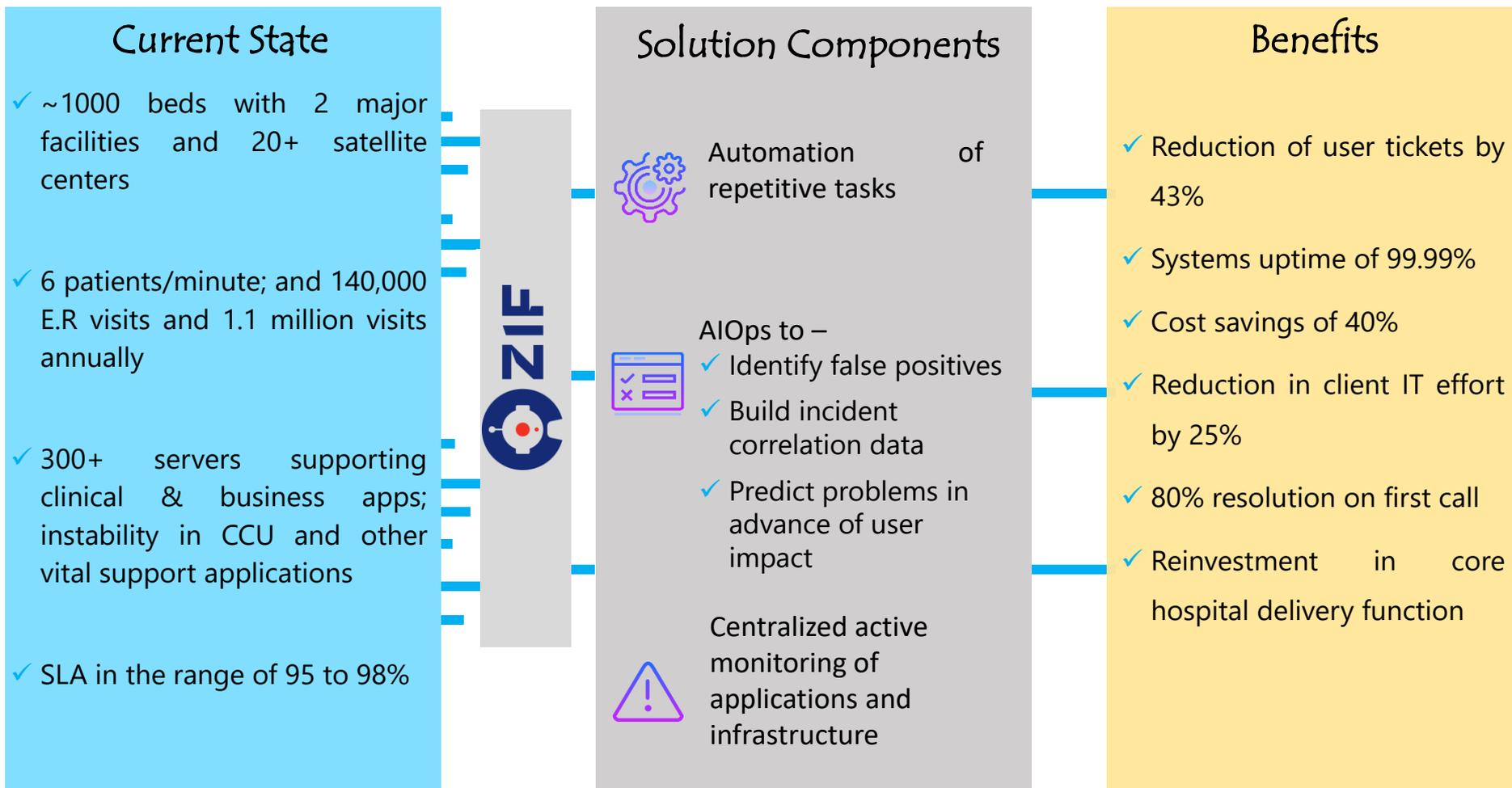
A 360° view of the performance of different infrastructure layers

Near 80% accuracy in Event correlation

Time for root cause analysis reduced from days to hours

Single dashboard integrating all events and alerts from multiple tools enhancing collaboration across teams

#4 – Incident Reduction for a major New York Hospital



GAVS

ZERO

is the new Normal

www.gavstech.com
inquiry@gavstech.com