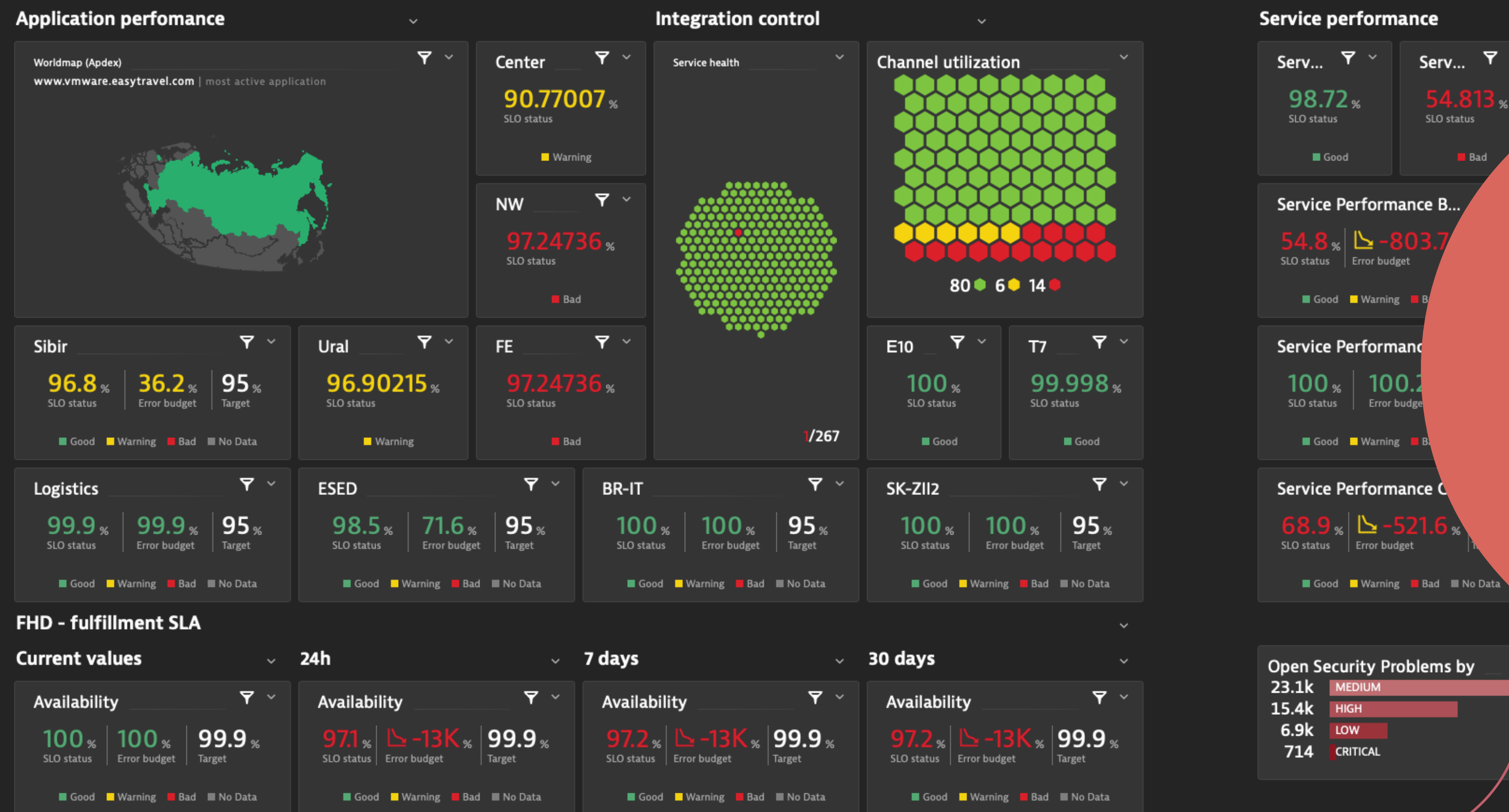




DESK

Digital Experience **System Kit**

Digital Experience System Kit



With One DESK, IT managers and business owners can see how their commands and instructions are executed

SLA and business KPI monitoring

Infrastructure monitoring

User experiences monitoring

Release and product launch monitoring

DESK uses artificial intelligence to make the **system monitorable**



DATA

Artificial intelligence interprets data flows from various sources: business indicators, metrics, log files, traces, and user experience

End-to-End Monitoring

Troubleshooting and identification of abnormalities, reduction of system downtime

Testing new application functionality

+

Business Intelligence

Analysis of IT efficiency and its impact on business, user behavior, and marketing

Opex reduction

Digital Experience System **Kit**

IT_DESK

Full stack monitoring

AI automatically detects and prioritizes problems

Site Reliability Engineering

IT service architecture inventory

Release testing

Code quality management

Business_DESK

Business Impact
See real-time business impact to prioritize what matters most.

Release Validation
Ensure software releases meet expected business goals

Marketing_DESK

Real user monitoring.
100% observability to actual real user experiences

Analysis of business transactions, marketing campaigns, and user behavior.

Security_DESK

Runtime Vulnerability Analytics

Application Protection

Log audit and forensics

Key toolsets for digital teams on a single platform



ITSM Model



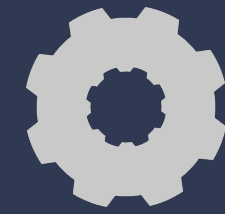
App Topology Visualization



Root Cause Identification



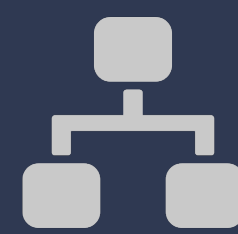
Database Monitoring



Microservice and Container Monitoring



Server Monitoring



Network Monitoring



Visualization Monitoring



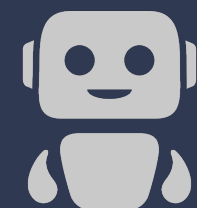
Business Metrics



Cloud Monitoring



Log Analysis



Synthetic Monitoring



Real User Monitoring



Mobile App Monitoring



User Behavior Analysis



Application Performance Management

DESK Capabilities Map

What **IT goals** will you achieve with DESK?

1

Improved performance. Instant troubleshooting all the way down to the code level helps fast system recovery – 15 minutes instead of several days.

2

IT system inventory. You can see how big is the "safety margin" of your leased server side and know for sure how the infrastructure is affecting the performance of your application.

3

Improved team building. The relationship between your IT and business units will be based on metrics and indicators rather than finger pointing.

4

System security. A dedicated module detects and reports program code vulnerabilities and application attacks.

Problem analysis: determined AI and machine learning algorithms



The Unified Agent analyses the entire application stack



The traces and the entire transaction path are analyzed end-to-end with code-level drilldown



The interrelationships are analyzed across all topology levels: from the user actions and browser metrics to the code and infrastructure

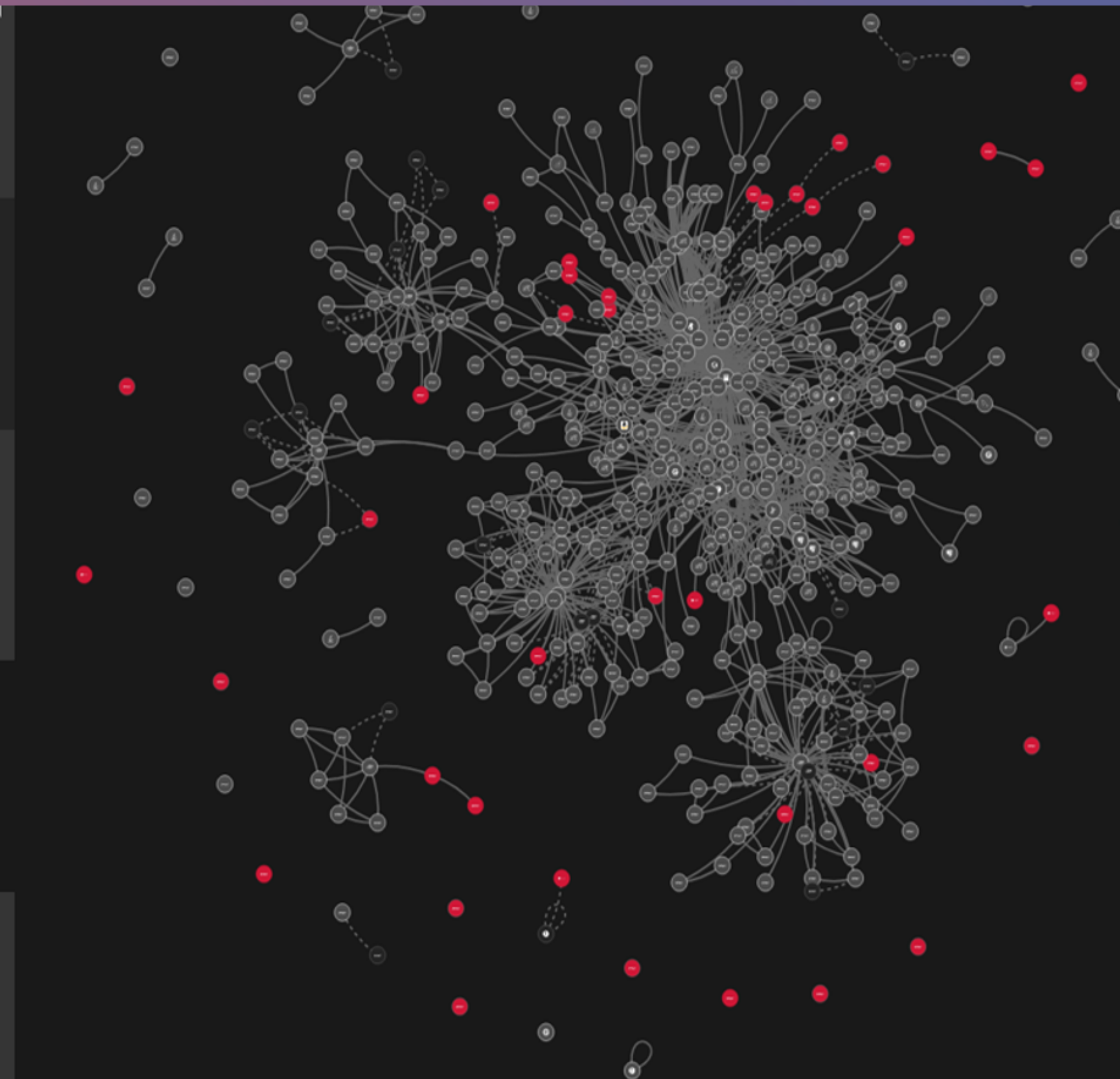
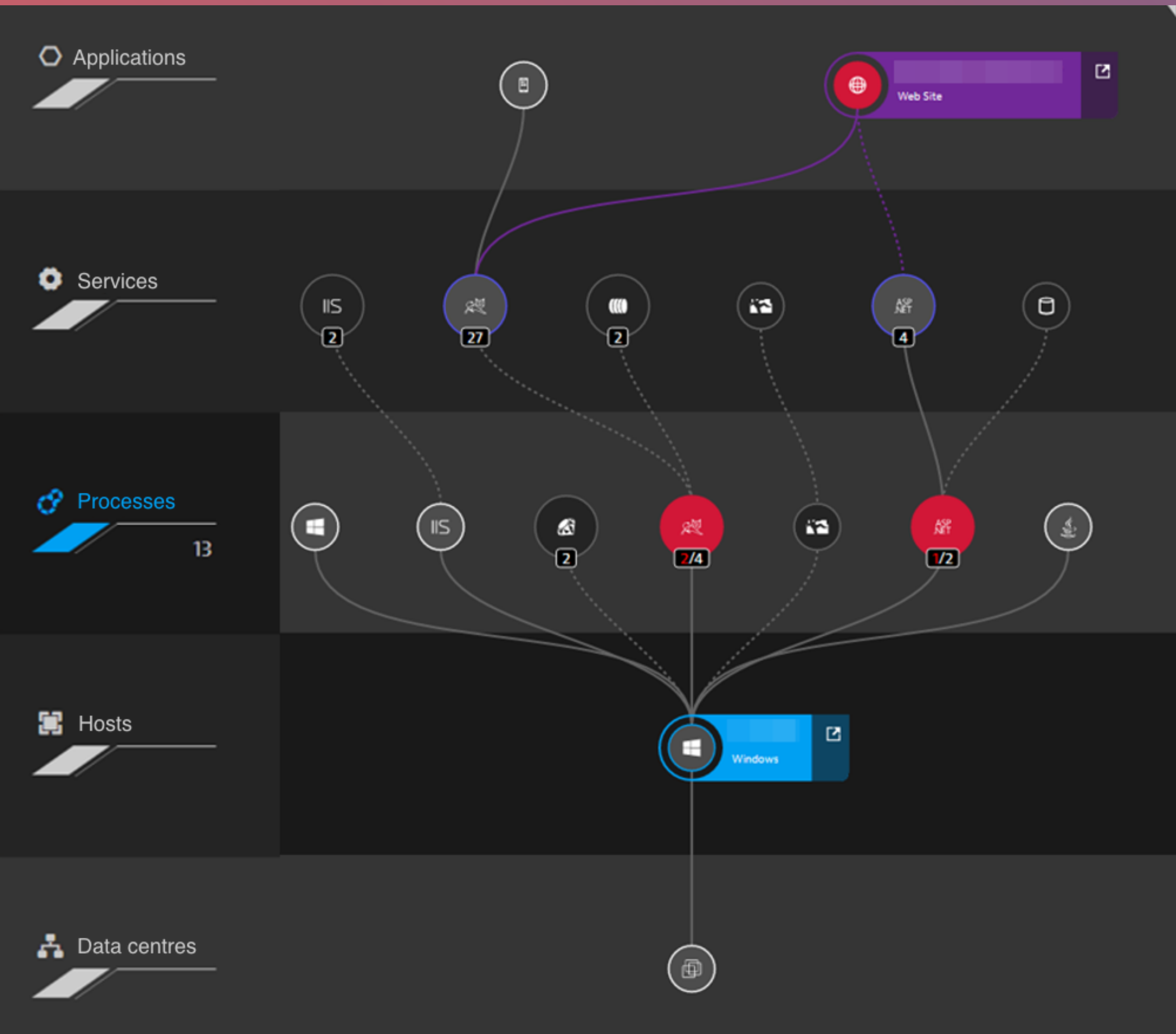


All abnormalities are identified, and their severity and route cause are pinpointed

Our technology ensures early detection of problems and identification of their root cause

IT system inventory

Automated analysis and displaying of your system's digital elements, their interrelationships, and performance indicators



End-to-End Query Tracing

DESK will automatically display each query as a logical sequence of calls with code-level drilldown

Complete Query Tree

Code Level

Distributed traces 190e6fe78b5daee58c3e29d39eb4f2da

'/orange-booking-payment.jsf' Trace

Start time: 2023 March 12 19:58:35 [What's new?](#) [Find in remote environments](#) [...](#)

1.59s Response time
1.59s Processing time

Execution breakdown

- 66 % Other
- 34 % CPU
- 0.15 % Network I/O

Request attributes

EasyTravel - journeyId: ...

Search name, URL, SQL, attribute...

- ✓ /orange-booking-payment.jsf EasyTravelWebserver:8079
- ✓ /orange-booking-payment.jsf easyTravel Customer Frontend
- ✓ checkCreditCard BookingService
- ✓ validateCreditCard CreditCardValidation
- SELECT ... FROM blocked_credit_cards WHERE pan='*****' ORDER BY entr
easyTravelBusiness

/orange-booking-payment.jsf

Summary Timing Threads **Code level** Logs Errors

Search name, url, sql, attribute,...

	Elapsed	Self time	Duration	Actions
16 stack frames expand				...
service Built-In JRE javax.faces.webapp.FacesServlet		12.3 ms	1.59 s	...
19 stack frames expand				
send Built-In Apache org.apache.axis2.description.OutInAxisOperationClient	+9.48 ms	744 µs	1.58 s	...
6 stack frames expand				
executeMethod Built-In Apache org.apache.commons.httpclient.HttpClient	+9.65 ms	3.91 ms	1.58 s	...
Synchronous invocation				

Real-Time Tracing of User Actions

User action analysis

for performLogin

Selected execution: Today, 13:19:39



0.85 s
Duration



Frustrated
Apdex



Apple A1662
Device



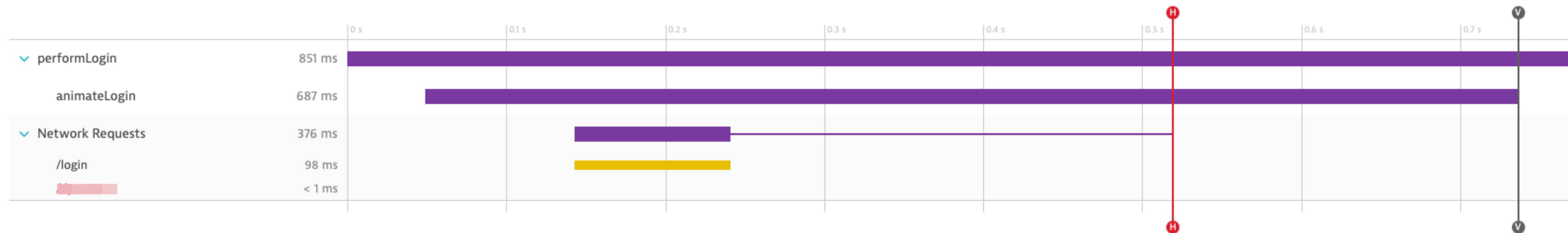
iOS 11.4.1
Operating system



Pittsburgh, Pennsylv...
Geo location

Battery level 49 %
Free memory 4.71 % / 37 MiB
Connection type Mobile
Screen orientation Landscape
Network technology 4G
Carrier T-Mobile

CPU armv8-A
IP address 136.142.76.4
ISP University of Pittsburgh
Screen resolution 640 x 1136
User language en_US
Rooted / jailbroken no



Device and Query Status Details

Device status during transaction execution

Backend queries and errors

User action analysis

for performLogin

Selected execution: Today, 13:19:39



0.85 s
Duration



Frustrated
Apdex



Apple A1662
Device

ios

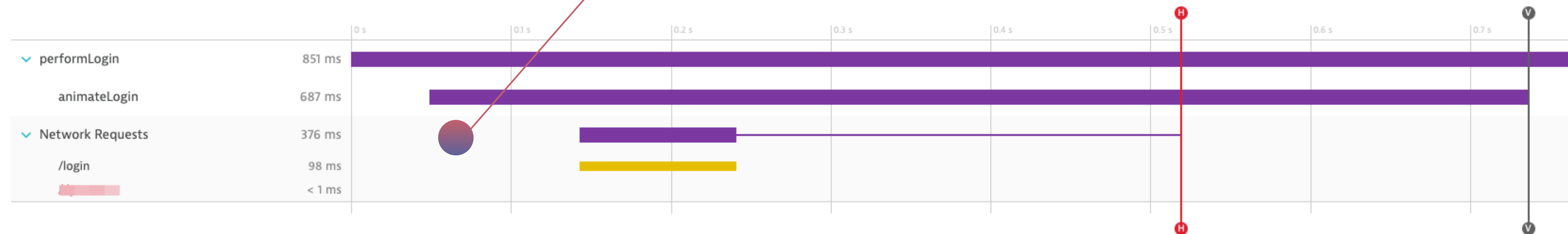
iOS 11.4.1
Operating system



Pittsburgh, Pennsylv...
Geo location

Battery level	49 %
Free memory	4.71 % / 37 MiB
Connection type	Mobile
Screen orientation	Landscape
Network technology	4G
Carrier	T-Mobile

CPU	armv8-A
IP address	136.142.76.4
ISP	University of Pittsburgh
Screen resolution	640 x 1136
User language	en_US
Rooted / jailbroken	no



Log File Events Monitoring

Data Source

Search attributes...

Statistics are estimated on 1/256 of your data

Favorites

Available attributes

- loglevel
 - none 59.5mil
 - info 30.6mil
 - debug 7.53mil
 - error 1.13mil
 - notice 71.4k
 - warn 60.2k
 - severe 8.19k
- log.source
 - /var/log/pods/hipster-feds_c... 11.5mil
 - /var/vcap/store/mysql_audit... 10.8mil
 - /var/log/pods/hipster-feds_f... 10.5mil
 - /var/log/syslog 8.81mil
 - /var/log/kube-apiserver/audi... 8.13mil
 - /var/log/pods/hipster-feds_c... 7.57mil
 - /var/log/pods/unguard_ungu... 3.43mil
 - /var/log/pods/hipster-feds_c... 2.38mil
 - /var/log/pods/online-boutiqu... 1.9mil
 - /var/log/pods/hipster-feds_s... 1.52mil

Logging Level

98.9mil results found

timestamp	status	content
2022-10-24 20:48:37	INFO	2022-10-24 10:46:00 WebLaunche DEBUG [Simulator] OpenKit ET Mobile Scenario: visitcount: 20854
2022-10-24 20:48:35	INFO	2022-10-24 10:45:58 WebLaunche DEBUG [Simulator] Headless Customer Scenario: visitcount: 39395
2022-10-24 20:48:35	INFO	2022-10-24 10:45:58 WebLaunche INFO [HeadlessVisitRunnable] [187.155.37.233] All objects currently active - visit will be ignored [Pool exhausted] java.util.NoSuchElementException: Pool exhausted at org.apache.commons.pool.impl.GenericObjectPool.borrowObject(GenericObjectPool.java:1110) at com.dynatrace.diagnostics.uemload.headless.DriverEntryPool.getDriverEntry(DriverEntryPool.java:75) at com.dynatrace.diagnostics.uemload.headless.HeadlessVisitRunnable.run...
2022-10-24 20:48:35	ERROR	2022-10-24 10:45:58 WebLaunche ERROR [HeadlessVisitRunnable] DriverEntry shutDown. [com.dynatrace.diagnostics.uemload.headless.DriverEntry@21bc02db useCnt: [10] drv: [ChromeDriver: chrome on WINDOWS (6748b53aea63681c88446ca9e981b343) http://localhost:25944] proxy: [org.littleshoot.proxy.impl.DefaultHttpProxyServer@128ae186 /127.0.0.1:60826] chrome_driver: [http://localhost:25944] debug port: [60830] ip: [155.231.68.217] healthy: [true]]
2022-10-24 20:48:35	INFO	2022-10-24 10:45:58 WebLaunche INFO [DriverEntryFactory] Driver being destroyed: com.dynatrace.diagnostics.uemload.headless.DriverEntry@21bc02db useCnt: [10] drv: [ChromeDriver: chrome on WINDOWS (6748b53aea63681c88446ca9e981b343) http://localhost:25944] proxy: [org.littleshoot.proxy.impl.DefaultHttpProxyServer@128ae186 /127.0.0.1:60826] chrome_driver: [http://localhost:25944] debug port: [60830] ip: [155.231.68.217] healthy: [true]
2022-10-24 20:48:35	INFO	2022-10-24 10:45:58 WebLaunche DEBUG [DriverEntryFactory] validateObject: com.dynatrace.diagnostics.uemload.headless.DriverEntry@21bc02db useCnt: [10] drv: [ChromeDriver: chrome on WINDOWS (6748b53aea63681c88446ca9e981b343) http://localhost:25944] proxy: [org.littleshoot.proxy.impl.DefaultHttpProxyServer@128ae186 /127.0.0.1:60826] chrome_driver: [http://localhost:25944] debug port: [60830] ip: [155.231.68.217] healthy: [true]
2022-10-24 20:48:35	INFO	2022-10-24 10:45:58 WebLaunche DEBUG [HeadlessVisitRunnable] finished closing visit 155.231.68.217 ChromeDriver: chrome on WINDOWS (6748b53aea63681c88446ca9e981b343)
2022-10-24 20:48:28	NONE	Received connection from 172.31.15.236
2022-10-24 20:48:28	NONE	Handled data, returning: Valid - Credit Card number was verified successfully.
2022-10-24 20:48:28	NONE	Handled data, returning: Valid - Credit Card number was verified successfully.
2022-10-24 20:48:28	NONE	Found tag: FW4;-462096422;1;-1336768186;103890;0;-1607636704;280;756c;2h05;3hb24b1fa9;4h0e238c;5h01;6h411e498e9fd48e4673522077de2cda27;7hb5a60cdf84e8736, GLE=0.
2022-10-24 20:48:28	NONE	waiting for a connection
2022-10-24 20:48:28	NONE	-----

Create processing rule Create metric Format table Actions

Analysis of IT Problems Impact on Business

Affected Components

Business Impact

Business Metrics

Root Causes

Проблемы > Проблема P-220433529

Деградация времени отклика

Проблема P-220433529 обнаружена в 12:17 - 12:26 (был открыт 9 минут).

Затронутые прилож... - Затронутые сервисы 1 Затронутая инфрастр... -

Анализ влияния на бизнес

Анализ всех затронутых сервисных вызовов и реальных пользователей, затронутых проблемой, показывает следующее потенциальное воздействие.

- 2.02k Пользователей отслеживалось
- 71.2mil Затронутые сервисные вызовы
- 373 Затронутые пользователи
- 1.88k Затронутые пользователи
- 71.2mil Затронутые сервисные вызовы

Затронутые приложения: SwipeToRefresh (100 % затронутый), Touch on ConstraintLayout (99 % затронутый)

Затронутые сервисы точки входа: Dynamic web requests (100 % затронутый), Resource requests (100 % затронутый)

[Показать меньше](#)

Основная причина

Основываясь на корреляции времени и анализе всех транзакций, в которых используются эти компоненты, у этой проблемы есть следующая основная причина

ProcessingFacade
Веб-сервис

Обнаружены аномалии метрики

Просмотрите показатели, которые показывают ненормальное или необычное поведение.

Время ответа сервера
+ 60.1 мс

Now: [Red bar] Перед: [Grey bar]

[Анализировать метрические аномалии](#)

Путь визуального разрешения

Щелкните, чтобы узнать, как мы это выяснили.



Analysis of IT Problems Impact on Business


Affected Components

Business Impact





Business Metrics

Root Causes

Problems > Problem P-230236

 5 services: Response time degradation
> Problem P-230236 detected at Feb 13 06:32 - Feb 13 06:46 (was open for 14 minutes).

Share feedback

 Affected applications -  Affected services 5  Affected infrastructure -  Affected SLOs -


Business impact analysis

Davis observed the following number of service calls and affected real users during the problem timeframe.

 51 / 57 affected users


 75.9k affected service calls

Affected mobile apps


 Easy Travel Mobile
DoLogin (90 % affected)
searchJourney (88 % affected)

51 / 57 affected users
[See user sessions sample](#)

Affected entry point services

 EasyTravelWebserver:8079
/special-offers.jsp (100 % affected)
/orange.jsf (98 % affected)
/logout.jsf (100 % affected)


60.6k affected service calls
[See service flow](#)


 EasyTravelWebserver:9079
/easytravel/rest/login (100 % affected)
Images (100 % affected)
/easytravel/rest/bookings (100 % affected)

15.3k affected service calls
[See service flow](#)


Root cause

Based on our dependency analysis all incidents have the same root cause

 easyTravel Customer Frontend
Web request service

 Response time degradation event
Service method /CalculateRecommendations slow down

Events on:
Service [easyTravel Customer Frontend](#)

 Analyze code level, database calls, and outgoing requests.

Analyze response time degradation

Metric anomalies detected

Review the metrics which show abnormal or outlying behavior.

Show 2 more

Security Monitoring

The Monitoring Agent automatically detects all vulnerabilities at the level of the code and used libraries, and evaluates the severity of each event

Description of Vulnerability CVSS Vulnerable Objects

Public internet exposure

Public network



Reachable data assets

Within range



Vulnerable functions

Not in use



CVSS



Vulnerable Objects

Mute



Exploit
Exploit published



Process groups
4 affected



Vulnerable component
log4j-core

Vulnerability details Insights by snyk

Description

[org.apache.logging.log4j:log4j-core](#) is a logging library for Java.

Affected versions of this package are vulnerable to Remote Code Execution (RCE). Apache Log4j2 JNDI features used in configuration, log messages, and parameters do not protect against attacker controlled LDAP and other JNDI related endpoints. An attacker who can control log messages or log message parameters can execute arbitrary code loaded from LDAP servers when message lookup substitution is enabled.

From log4j 2.15.0, JNDI LDAP endpoints are restricted to localhost by default.

For more information visit [SNYK](#)

CVE..... [CVE-2021-44228](#)

OWASP..... [2021:A3](#), [2021:A6](#)

CWE..... [CWE-94](#)

Vulnerable functions

The following function has been identified to contain the vulnerability within the library.

PG: Process group

Technology

Java

Process group overview

Process groups

Process groups in total	10
Vulnerable process groups	4 (40%)
Resolved process groups	5 (50%)
Muted process groups	1 (10%)

■ Vulnerable ■ Resolved ■ Muted

Processes

Processes total	11
Vulnerable processes	4
Affected processes	1 (25%)
Affected and exposed processes	3 (75%)

■ Affected ■ Exposed ■ Not affected

Most affected process groups

600+ technologies supported



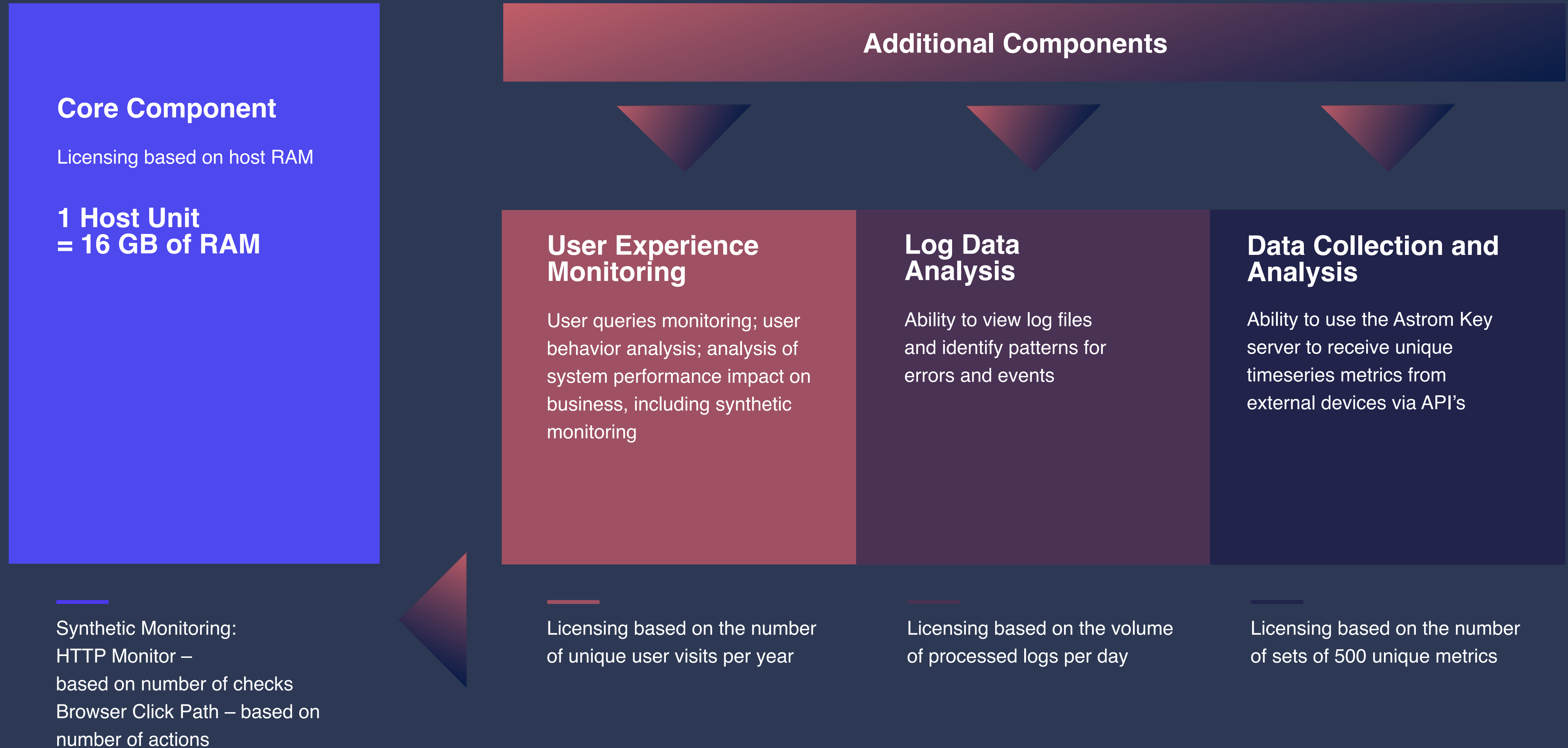
.NET



Complete List

<https://ruscomtech.ru/industries/#technologies>

Licensing Components



DESK Customer Base



СБЕР

ВТБ

РОСБАНК

РоссельхозБанк

открытие
Брокер

МКБ

Райффайзен БАНК

Камне
ИНТЕРНЕТ-ГИПЕРМАРКЕТ

РУССКИЙ СТАНДАРТ БАНК

ПАРИТЕТBANK

ЭЛЕКТРОННАЯ РОССИЯ

Альфа-Банк

Министерство сельского хозяйства Российской Федерации

Ростелеком

МОЕХ МОСКОВСКАЯ БИРЖА

X

RCT
LLC Ruscomtechnologies

10 years in Russia&CIS

Strong APM implementation team and 2 lines of technical support

