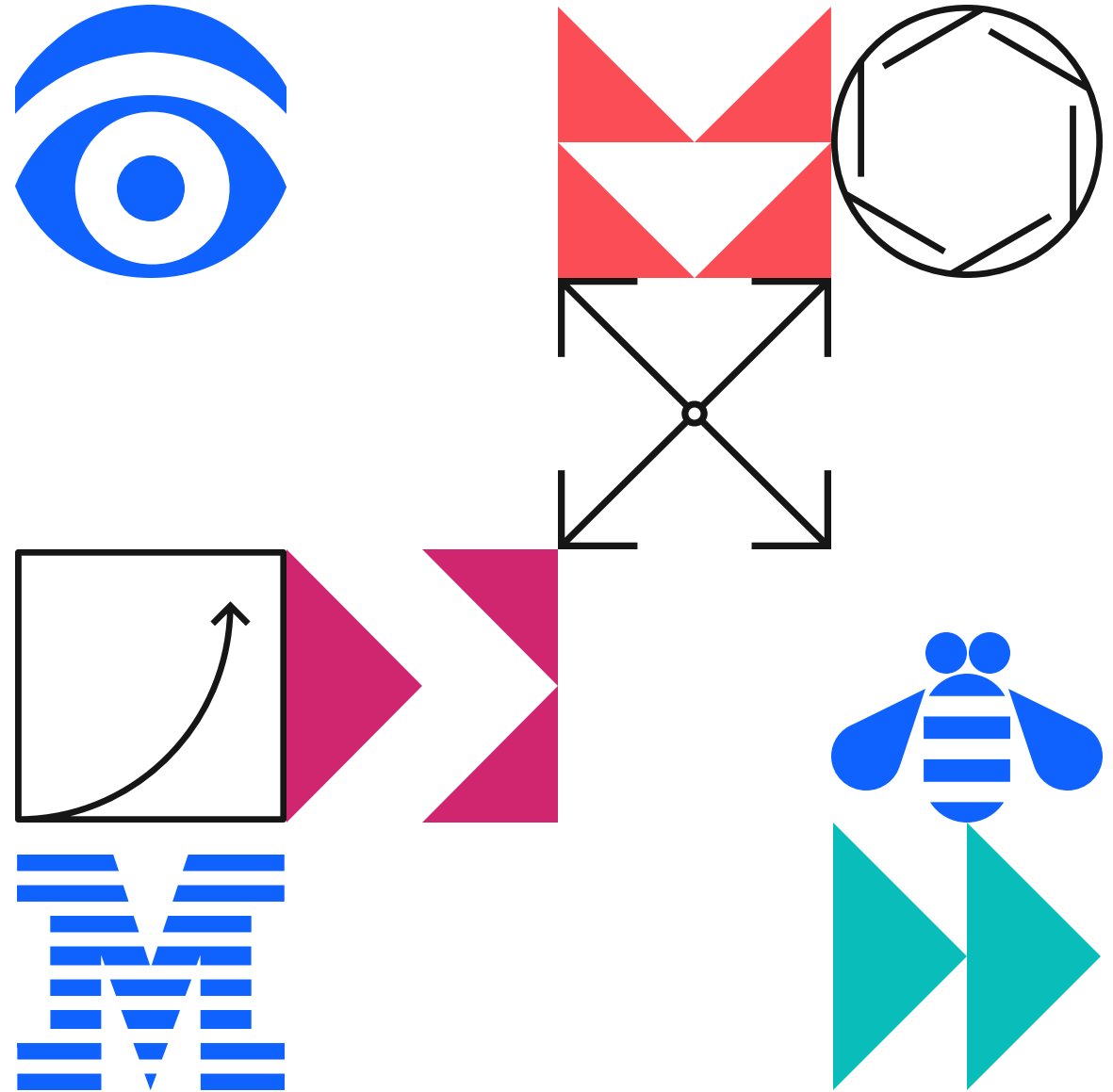


IBM Storage Defender Data Resiliency Service

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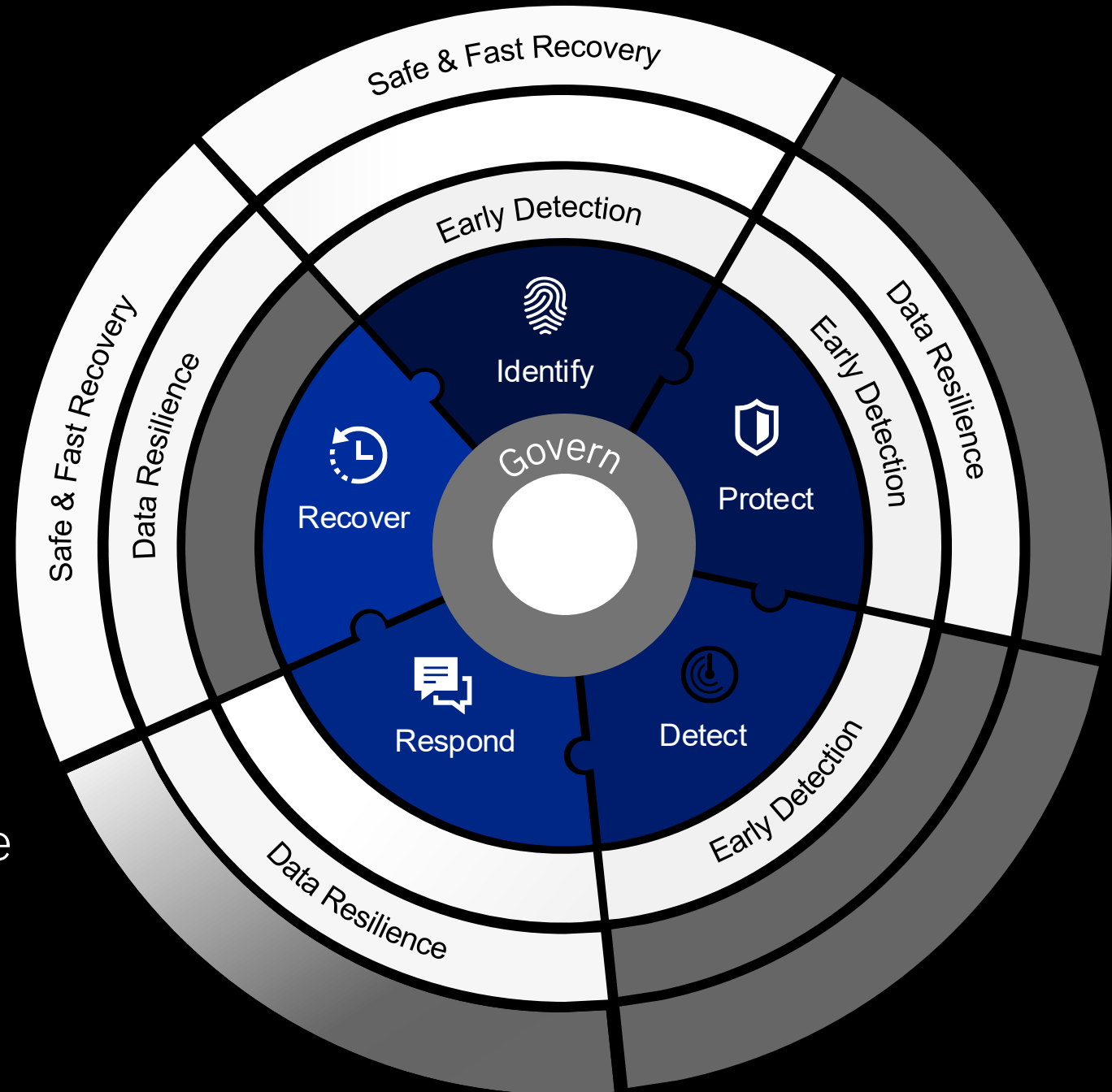
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What is Cyber Storage?

Early Threat Detection helps detect and prevent attacks in your environment

Data Resilience & Compliance ensures your data is being backed up

Safe & Fast Recovery can then restore your business as quickly as possible



What is IBM doing?

Bringing together capabilities from both storage and backup systems.

- Ensures fastest recovery of critical workloads
- Implements a layer approach to data management to minimize data loss
- Leveraging guarantees and sustainable solutions

Integrating with IBM Security to provide end-to-end solutions from a single vendor

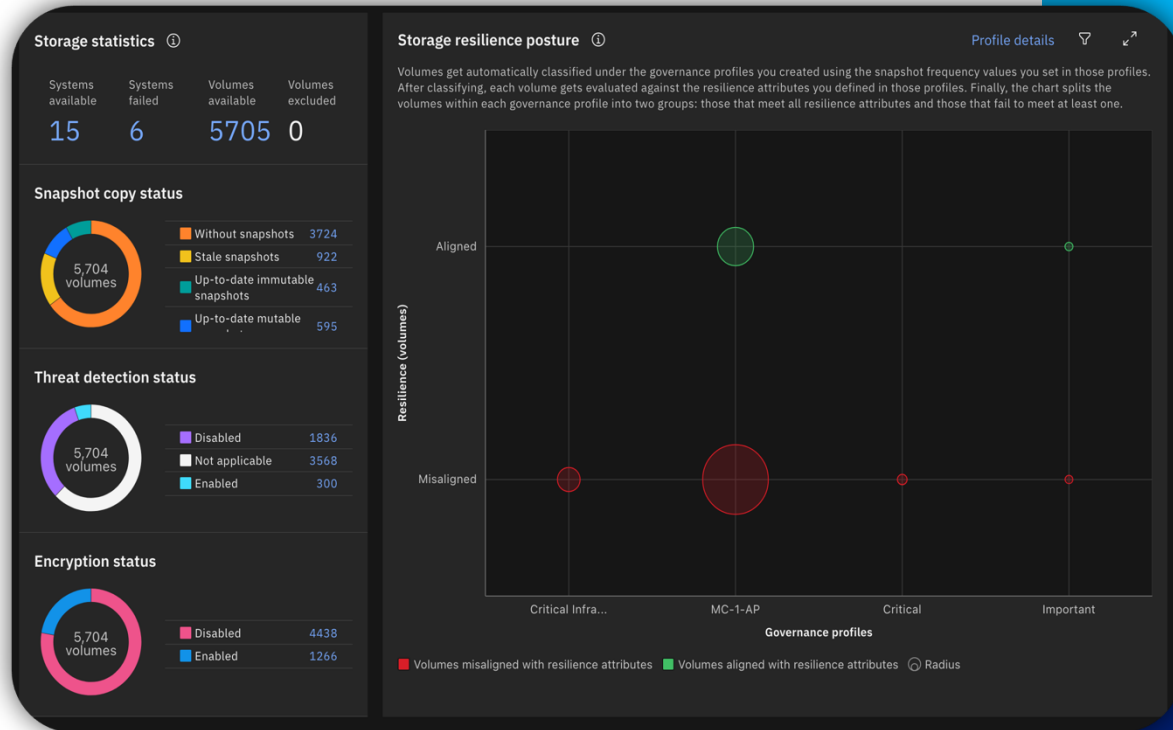
- Leverage market leading solutions in an integrated model
- Validate copies and mounted data in a clean room environment

Shifting detection left. Implementing layers of scanning to detect threats early.

- Multiple layers of anomaly and malware detection to reduce dormant threats
- Potentially detect malware and corruption before SOC
- Identify clean “safe” copies based on detected anomalies



IBM Storage Defender - Data Resiliency Service



Dashboard



- Data recoverability across workloads
- Actionable insights on meeting recovery and resiliency standards



IBM and 3rd party data platforms

- IBM FlashSystem, Dell PowerMax, and Pure
- IBM Defender Data Protect, Storage Protect



Alert on Risks or Red Flags

- Alerts on risks to meeting compliance
- Detect threats early through deployable anomaly detection agents



Policy Automation

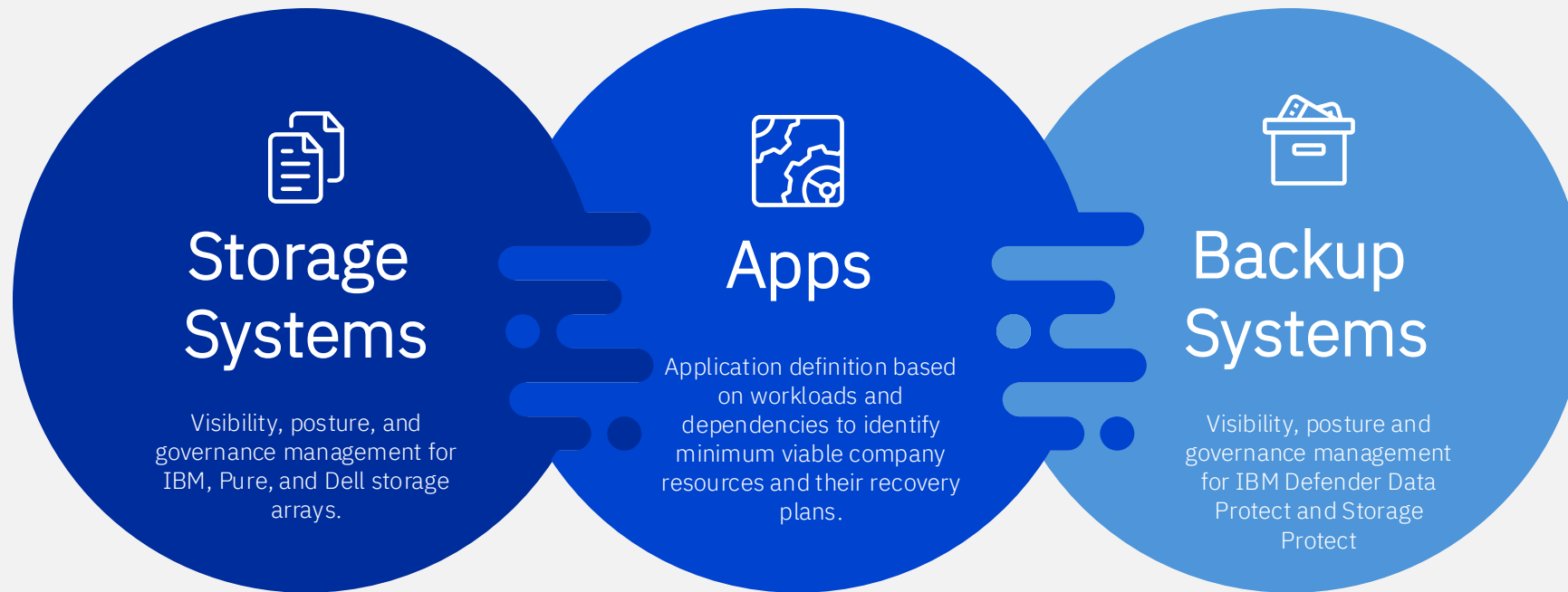
- Define applications and recovery groups that map to minimum viable company that spans disparate infra and workloads
- Fix governance, SLA, and compliance discrepancies at scale



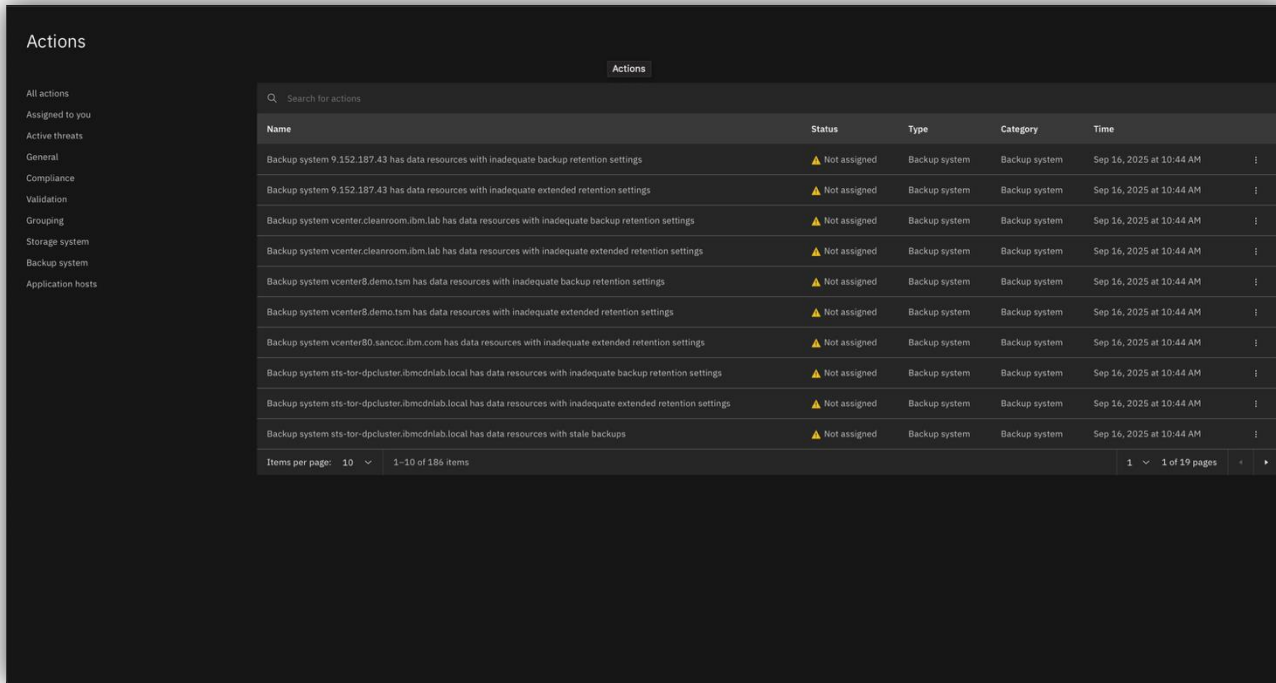
Drive Policy and Application Consistency

- Highlight configuration inconsistencies
- Application aware policies covering software snapshots, hardware snapshots, backups, tape and cloud tiered data

IBM Storage Defender – Data Resiliency Service



Take Actions with DRS



The screenshot displays the 'Actions' section of the DRS interface. On the left, there is a sidebar with navigation links: 'All actions', 'Assigned to you', 'Active threats', 'General', 'Compliance', 'Validation', 'Grouping', 'Storage system', 'Backup system', and 'Application hosts'. The main area features a search bar labeled 'Search for actions' and a table of tasks. The table has columns for 'Name', 'Status', 'Type', 'Category', and 'Time'. All tasks listed have a status of 'Not assigned' and a time of 'Sep 16, 2025 at 10:44 AM'. The tasks are related to backup retention settings for various data resources. At the bottom, there is a pagination control showing 'Items per page: 10' and '1 - 10 of 186 items'.

Name	Status	Type	Category	Time
Backup system 9.152.187.43 has data resources with inadequate backup retention settings	Not assigned	Backup system	Backup system	Sep 16, 2025 at 10:44 AM
Backup system 9.152.187.43 has data resources with inadequate extended retention settings	Not assigned	Backup system	Backup system	Sep 16, 2025 at 10:44 AM
Backup system vcenter.cleanroom.ibm.lab has data resources with inadequate backup retention settings	Not assigned	Backup system	Backup system	Sep 16, 2025 at 10:44 AM
Backup system vcenter.cleanroom.ibm.lab has data resources with inadequate extended retention settings	Not assigned	Backup system	Backup system	Sep 16, 2025 at 10:44 AM
Backup system vcenter8.demo.tsm has data resources with inadequate backup retention settings	Not assigned	Backup system	Backup system	Sep 16, 2025 at 10:44 AM
Backup system vcenter8.demo.tsm has data resources with inadequate extended retention settings	Not assigned	Backup system	Backup system	Sep 16, 2025 at 10:44 AM
Backup system vcenter80.sanccoc.ibm.com has data resources with inadequate extended retention settings	Not assigned	Backup system	Backup system	Sep 16, 2025 at 10:44 AM
Backup system sts-tor-dpcluster.ibmcdnlab.local has data resources with inadequate backup retention settings	Not assigned	Backup system	Backup system	Sep 16, 2025 at 10:44 AM
Backup system sts-tor-dpcluster.ibmcdnlab.local has data resources with inadequate extended retention settings	Not assigned	Backup system	Backup system	Sep 16, 2025 at 10:44 AM
Backup system sts-tor-dpcluster.ibmcdnlab.local has data resources with stale backups	Not assigned	Backup system	Backup system	Sep 16, 2025 at 10:44 AM

DRS streamlines incident and misconfiguration handling by aligning recovery point policies with governance requirements, ensuring compliance and data protection. Additionally, it provides task assignment and workflow management features, allowing teams to coordinate and remediate issues efficiently while maintaining operational resilience.

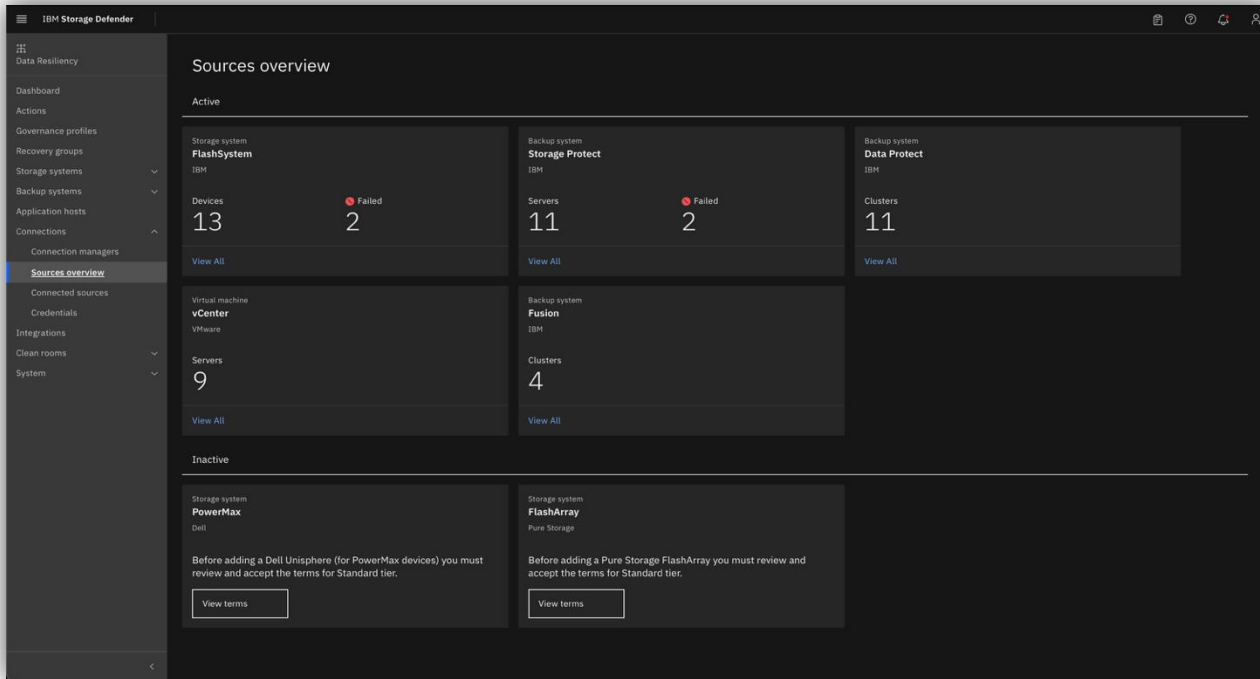
Today

- **Define governance policies** for your storage and backup systems that follow enterprise goals as well as industry frameworks or policies.
- Proactively **test your recovery points** and ensure they are ready for recovery when needed.
- Respond to anomalies and threats with **granularity**.

Vision

- Drive additional actions for both **proactive and reactive operations**.
- Map actions to ensure **regulatory and compliance** use cases are met.
- Enhance and **prioritize actions** with AI insights and intelligence.

Bridge Silos with DRS



DRS bridges storage and backup silos by providing an end-to-end view across enterprise storage systems and platforms. It unifies fragmented environments into a single pane of visibility, enabling teams to monitor, manage, and optimize storage and backup resources, governance, and resiliency holistically. This integrated approach improves efficiency, reduces complexity, and ensures data resilience across the entire infrastructure.

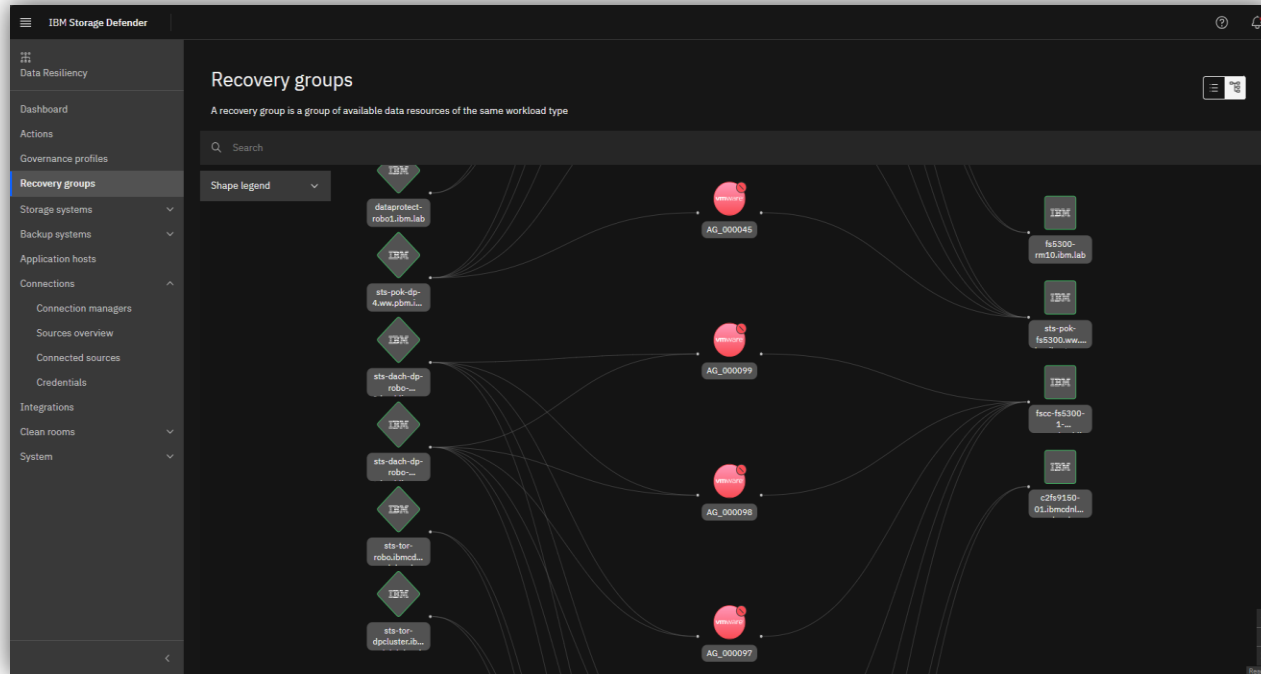
Today

- **Reduce gaps** between security, storage, and backup systems.
- Connect different sources from multiple vendors like **IBM, Dell, and Pure.**
- Recover efficiently from the latest, **clean recovery points** available to you from across the enterprise.

Vision

- Bring in additional sources for **primary storage**
- Bring in additional sources for **backup storage**
- Support additional **workloads**

Visualize with DRS



DRS visualizes connected sources enabling users to see relationships, groupings, and dependencies across their environment. By mapping these connections, it highlights coverage gaps and strengthens visibility into protection and resiliency posture. This holistic view helps organizations identify risks, optimize defenses, and ensure comprehensive resilience across their systems.

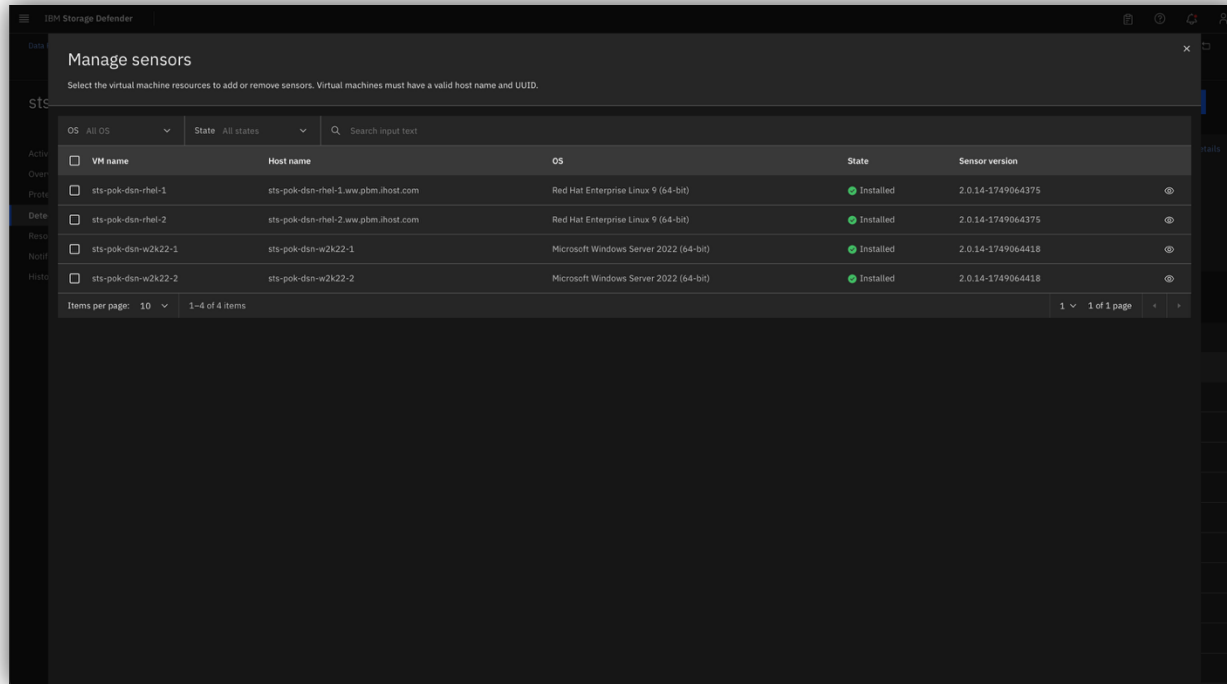
Today

- Highlight **protection gaps** across the environment.
- Automatically **group and map relationships** between common resources across primary storage, backup and virtual machines.
- Optimize copies by identifying objects and copies that have been over or under provisioned.

Vision

- Visualize **additional objects** like vCenters, volumes, datastores...
- Visualize **additional relationships** like replication and HA.
- Visualize **topology and connections** of systems and sources

Deploy Sensors with DRS



VM name	Host name	OS	State	Sensor version
sts-pok-dsn-rhel-1	sts-pok-dsn-rhel-1.wv.pbm.ihost.com	Red Hat Enterprise Linux 9 (64-bit)	Installed	2.0.14-1749064375
sts-pok-dsn-rhel-2	sts-pok-dsn-rhel-2.wv.pbm.ihost.com	Red Hat Enterprise Linux 9 (64-bit)	Installed	2.0.14-1749064375
sts-pok-dsn-w2k22-1	sts-pok-dsn-w2k22-1	Microsoft Windows Server 2022 (64-bit)	Installed	2.0.14-1749064418
sts-pok-dsn-w2k22-2	sts-pok-dsn-w2k22-2	Microsoft Windows Server 2022 (64-bit)	Installed	2.0.14-1749064418

DRS enables the deployment of lightweight sensors within VMware virtual machines to continuously monitor memory and file systems. Leveraging AI and ML, these sensors detect anomalies that may indicate corruption or emerging threats and generate real-time alerts to help teams investigate and respond quickly. This proactive approach enhances threat detection and safeguards the integrity of virtualized environments.

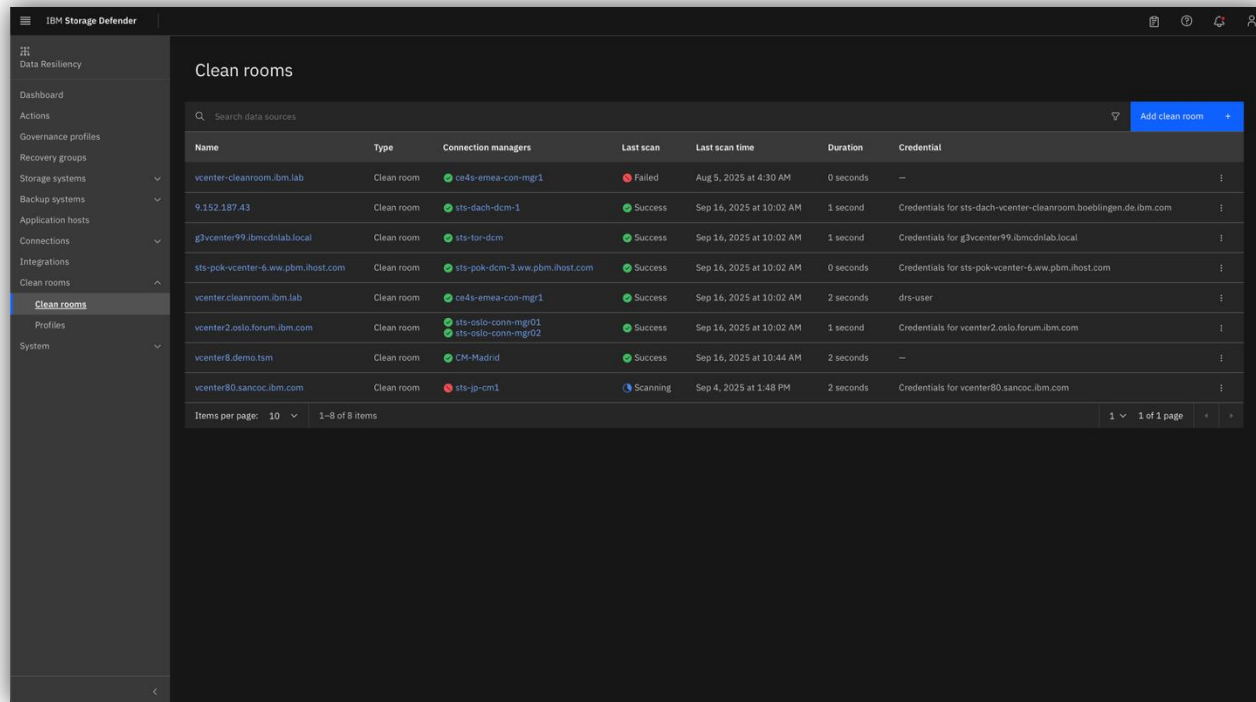
Today

- Ability to **deploy anomaly sensors** at the edge, directly into VMs.
- **Detect anomalous changes** within individual VMs leveraging AI and ML.
- Support for **Linux** and **Windows VMs**.

Vision

- Deploy Sensors across a **broader set of VMware Operating Systems**
- Deploy Defender sensors on **more platforms and file systems** like Power, Fusion, and Scale file systems.
- **Exfiltration sensors** to detect patterns that are related to data exfiltration.

Leverage Clean Rooms with DRS



The screenshot shows the IBM Storage Defender 'Clean rooms' interface. It features a sidebar with navigation options like Dashboard, Actions, Governance profiles, Recovery groups, Storage systems, Backup systems, Application hosts, Connections, Integrations, Clean rooms, Profiles, and System. The main area displays a table of clean room configurations with columns for Name, Type, Connection managers, Last scan, Last scan time, Duration, and Credential. A search bar and an 'Add clean room' button are at the top right of the table.

Name	Type	Connection managers	Last scan	Last scan time	Duration	Credential
vcenter-cleanroom.ibm.lab	Clean room	ce4s-emea-con-mgr1	Failed	Aug 5, 2025 at 4:30 AM	0 seconds	—
9.152.187.43	Clean room	sts-dach-dcm-1	Success	Sep 16, 2025 at 10:02 AM	1 second	Credentials for sts-dach-vcenter-cleanroom.boeblingen.de.ibm.com
g3vcenter99.ibmcdnlab.local	Clean room	sts-tor-dcm	Success	Sep 16, 2025 at 10:02 AM	1 second	Credentials for g3vcenter99.ibmcdnlab.local
sts-pok-vcenter-6.www.pbm.ihost.com	Clean room	sts-pok-dcm-3.www.pbm.ihost.com	Success	Sep 16, 2025 at 10:02 AM	0 seconds	Credentials for sts-pok-vcenter-6.www.pbm.ihost.com
vcenter-cleanroom.ibm.lab	Clean room	ce4s-emea-con-mgr1	Success	Sep 16, 2025 at 10:02 AM	2 seconds	drs-user
vcenter2.oslo.forum.ibm.com	Clean room	sts-oslo-con-mgr01 sts-oslo-con-mgr02	Success	Sep 16, 2025 at 10:02 AM	1 second	Credentials for vcenter2.oslo.forum.ibm.com
vcenter8.demo.tsm	Clean room	CM-Madrid	Success	Sep 16, 2025 at 10:44 AM	2 seconds	—
vcenter80.sancoc.ibm.com	Clean room	sts-jp-cm1	Scanning	Sep 4, 2025 at 1:48 PM	2 seconds	Credentials for vcenter80.sancoc.ibm.com

Items per page: 10 1-8 of 8 items 1 1 of 1 page

DRS allows organizations to define and connect an isolated recovery environment, or clean room, to safely restore data for analysis and forensics. By leveraging this controlled environment, teams can investigate threats, validate data integrity, and perform recovery testing without risking the spread of malware or corruption. This approach strengthens security and ensures a trusted path to resilient recovery.

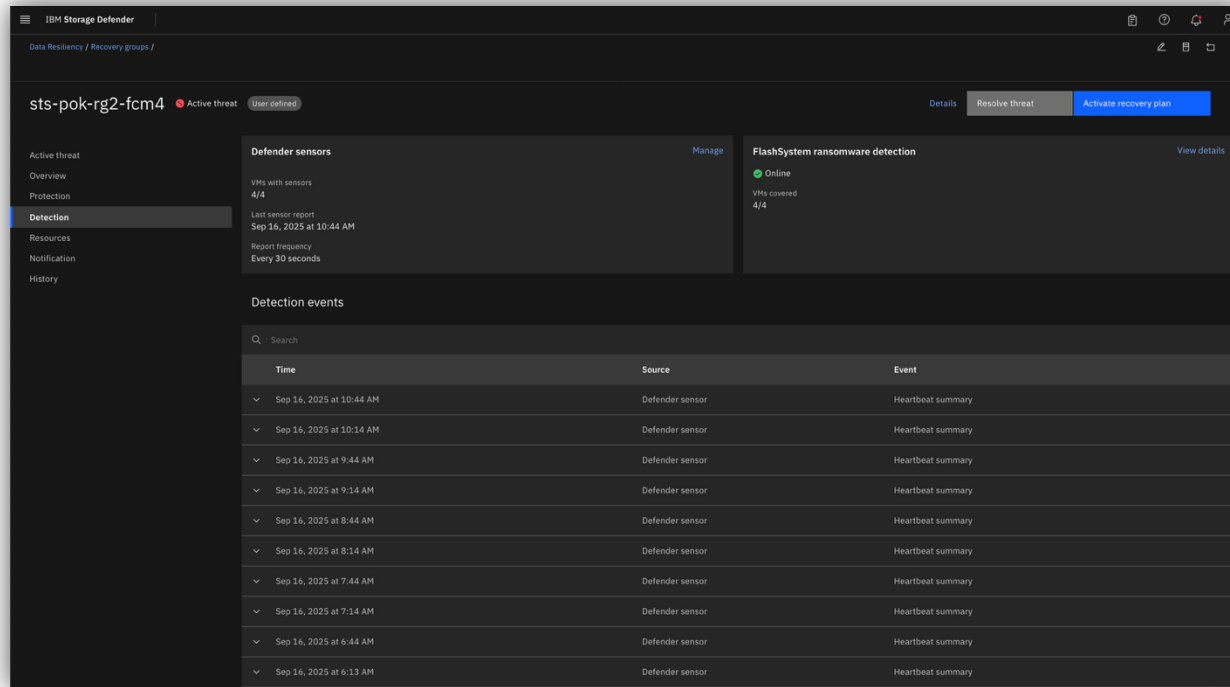
Today

- Deploy isolated environments for **validation of workloads** in an air-gaped, safe space.
- Leverage automation platforms like ansible to **facilitate complex testing** and return-to-production workflows.
- **Re-use existing security tools** like AV scanners to scan data in IRE.

Vision

- Deploy Isolated Scan Environments leveraging Index Engines – Cyber Sense to **scan workloads agnostically**.
- **Automate scanning and validation** of workloads across the storage estate.
- Enable **bring-your-own-scanner** for ISEs.

Aggregate Alerts with DRS



DRS centralizes alert management by ingesting alerts from multiple sources, including its deployed sensors and real-time threat detection within primary storage arrays. By consolidating these signals into a single view, it streamlines analysis, improves decision-making, and accelerates response actions. This unified approach enhances visibility and ensures faster, more effective threat mitigation across the environment.

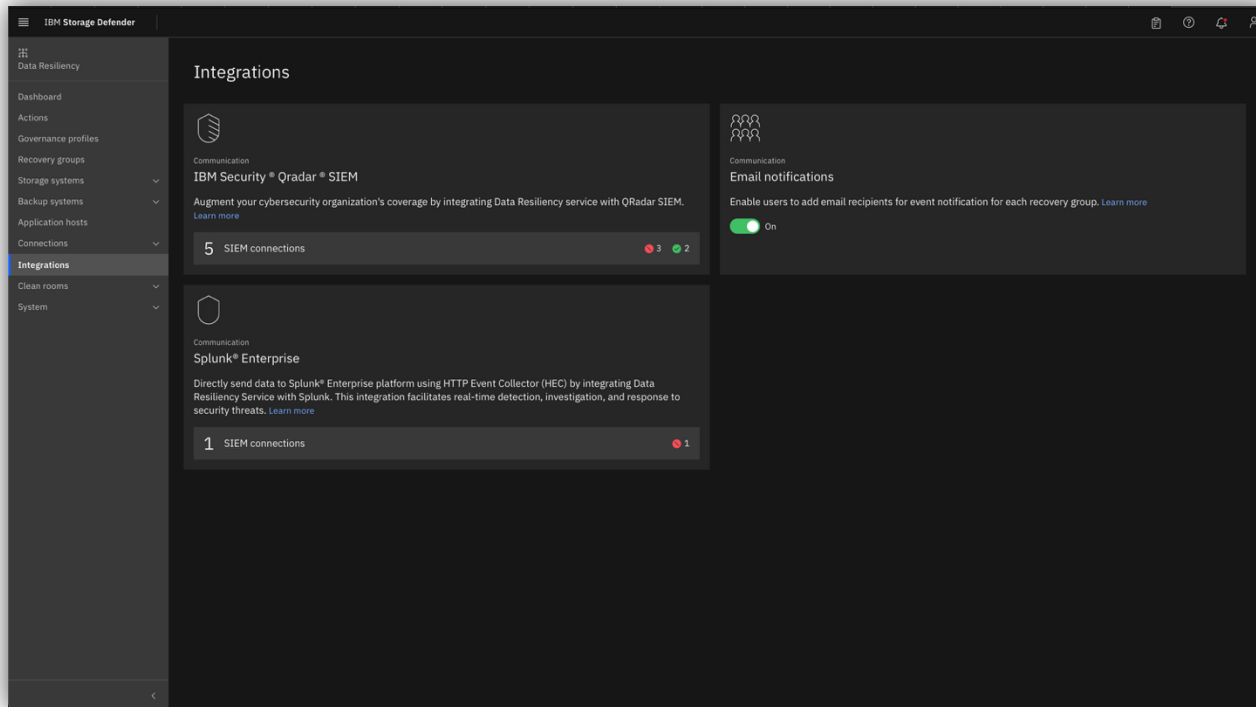
Today

- Ingest alerts from multiple sources to **identify threats at a wider scope**.
- Deployed Defender Sensors and FCM Anomaly detection work hand-in-hand to **detect anomalies and threats** in the environment.
- Leverage different technologies along different points in the data path to **detect threats with more fidelity**.

Vision

- Ingest alerts from **more sources** like Defender Data Protect and Defender Sentinel.
- Ingest **security bulletins** for most up to date data on threats and attack patterns.
- **Reduce false positives**, define **blast radius**, and create **threat timelines** to assist with response.

Integrate with DRS



DRS integrates with SIEM solutions to seamlessly feed alerts and events from its cyber resiliency platform into existing security operations workflows. By doing so, it enables security teams to detect potential threats faster, correlate them with broader enterprise events, and take timely action. This integration strengthens threat visibility and enhances overall security posture.

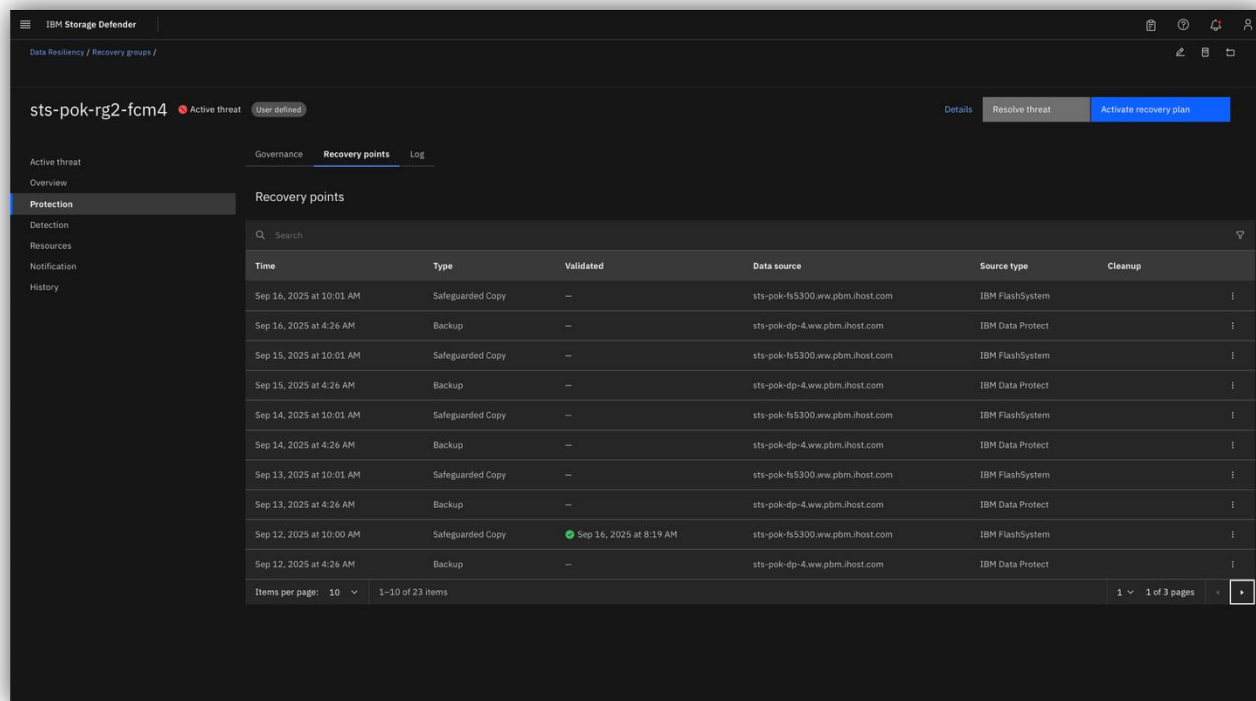
Today

- **Send logs and alerts to security teams** through integration of SIEM solutions including Qradar and Splunk.
- Receive enhanced alerting from IBM Storage Insights Pro for **aggregation** with other sensors.
- Integrate with your email provide to **alert users** and other personas about threats and other actions.

Vision

- Integrate with other platforms and applications like ServiceNow and add easier ways to integrate like **webhooks**.
- **Ingest data from SIEMs** and other security solutions to enhance Defender's threat aggregation, threat timeline, and blast radius capabilities.
- Leverage more automation and application tools like **Ansible, Terraform, and Turbonomic**

Curate Recovery Points with DRS



Time	Type	Validated	Data source	Source type	Cleanup
Sep 16, 2025 at 10:01 AM	Safeguarded Copy	—	sts-pok-fs300.www.pbm.ihost.com	IBM FlashSystem	⋮
Sep 16, 2025 at 4:26 AM	Backup	—	sts-pok-dp-4.www.pbm.ihost.com	IBM Data Protect	⋮
Sep 15, 2025 at 10:01 AM	Safeguarded Copy	—	sts-pok-fs300.www.pbm.ihost.com	IBM FlashSystem	⋮
Sep 15, 2025 at 4:26 AM	Backup	—	sts-pok-dp-4.www.pbm.ihost.com	IBM Data Protect	⋮
Sep 14, 2025 at 10:01 AM	Safeguarded Copy	—	sts-pok-fs300.www.pbm.ihost.com	IBM FlashSystem	⋮
Sep 14, 2025 at 4:26 AM	Backup	—	sts-pok-dp-4.www.pbm.ihost.com	IBM Data Protect	⋮
Sep 13, 2025 at 10:01 AM	Safeguarded Copy	—	sts-pok-fs300.www.pbm.ihost.com	IBM FlashSystem	⋮
Sep 13, 2025 at 4:26 AM	Backup	—	sts-pok-dp-4.www.pbm.ihost.com	IBM Data Protect	⋮
Sep 12, 2025 at 10:00 AM	Safeguarded Copy	✓ Sep 16, 2025 at 8:19 AM	sts-pok-fs300.www.pbm.ihost.com	IBM FlashSystem	⋮
Sep 12, 2025 at 4:26 AM	Backup	—	sts-pok-dp-4.www.pbm.ihost.com	IBM Data Protect	⋮

DRS curates recovery points by aggregating them from multiple systems, including both primary and backup storage across different vendors and platforms. This creates a single source of truth to identify the best possible recovery point, optimizing for stronger RPO and RTO. Additionally, it provides visibility into whether recovery points have been validated or scanned, ensuring confidence and integrity in data restoration.

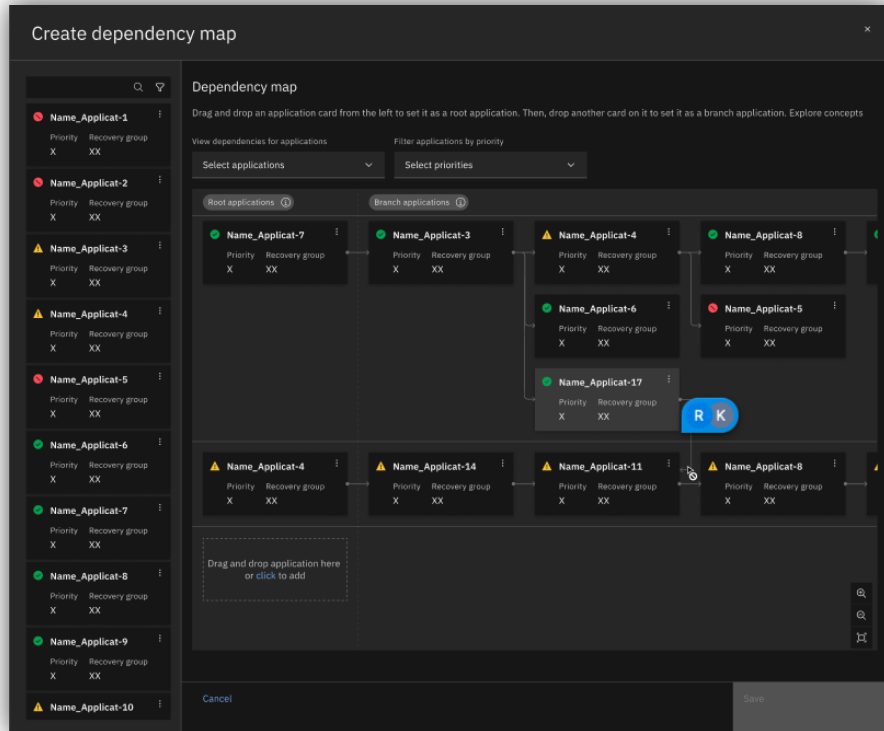
Today

- **Correlate** recovery points within Recovery Groups for a wide view of recovery points across the enterprise.
- Validate recovery points with **isolated recovery environments**.
- Mark validated recovery points as tested and valid for **response and planning**.

Vision

- Automatically **test recovery points** to validate them.
- **AI enhancements for prioritization** of scanning, validation, and restoration.
- Leverage **smart recovery plans** to identify best possible recovery path for workloads and applications.

Map Application Dependencies with DRS



DRS provides rapid and actionable data resiliency insights across storage and backup systems, highlighting strengths, gaps, and potential risks. It delivers clear recommendations to address vulnerabilities, improve protection, and enhance recovery readiness. This visibility empowers organizations to proactively strengthen resiliency and ensure business continuity.

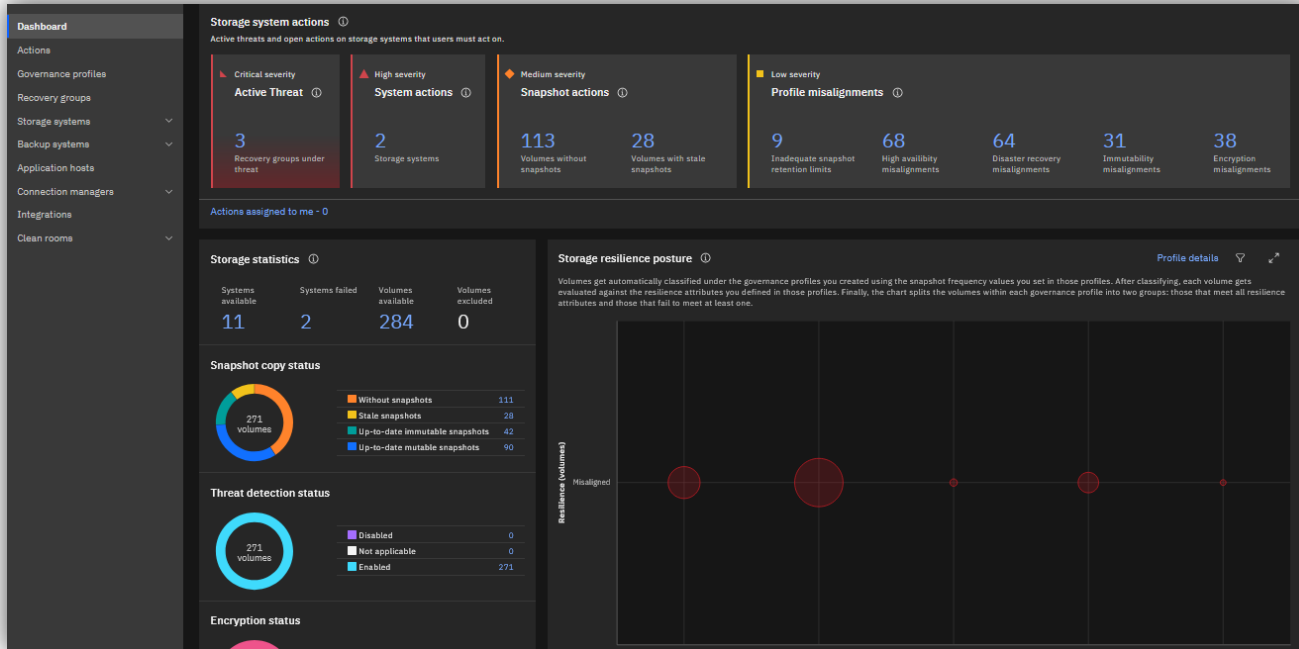
Today

- Bring together workloads that operate together, as an **Application**
- **Prioritise the recovery of workloads** within an Application, as well as the priority between Applications
- **Relate these Applications** to your business functions, and focus on bringing back your MINIMAL VIABLE COMPANY

Vision

- Downloadable **Recovery plans** that document applications, recovery points, and how to perform recovery. (support cyber event disconnect from internet)
- **Cached** recovery plans in data center (local) for ease of access and use for recovery.
- Offline recovery **automation** with recovery plans built using Ansible/Python. User provides input for which recovery point (timeframe) and recovery driven via automation.

Summarize with DRS



DRS provides rapid and actionable data resiliency insights across storage and backup systems, highlighting strengths, gaps, and potential risks. It delivers clear recommendations to address vulnerabilities, improve protection, and enhance recovery readiness. This visibility empowers organizations to proactively strengthen resiliency and ensure business continuity.

Today

- Leverage targeted dashboards for the **CISO**, **primary systems** administrator, and **backup systems** administrators, delivered in 2Q25
- Quickly compare your storage environment against **industry best practices**.
- Visualize gaps and actions to **improve or meet resiliency requirements** driven by the business or external policies.

Vision

- **Leverage AI and LLMs** to display data, drive actions, and summarize reports with granularity, on demand.
- Review **status of entire environment** across different sources, platforms, and sensors, in the cloud or on-premise
- **Customize view** based on persona, regulations, and needs.

Start your IBM Storage Defender DRS Trial

Gain visibility to your storage environment and gain valuable insights into its resiliency posture and governance metrics to meet business goals and regulations.



<https://ibm.biz/DRSTRIAL>

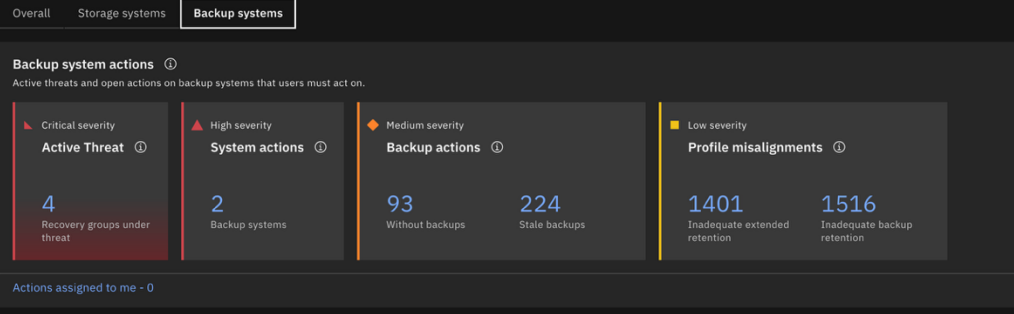
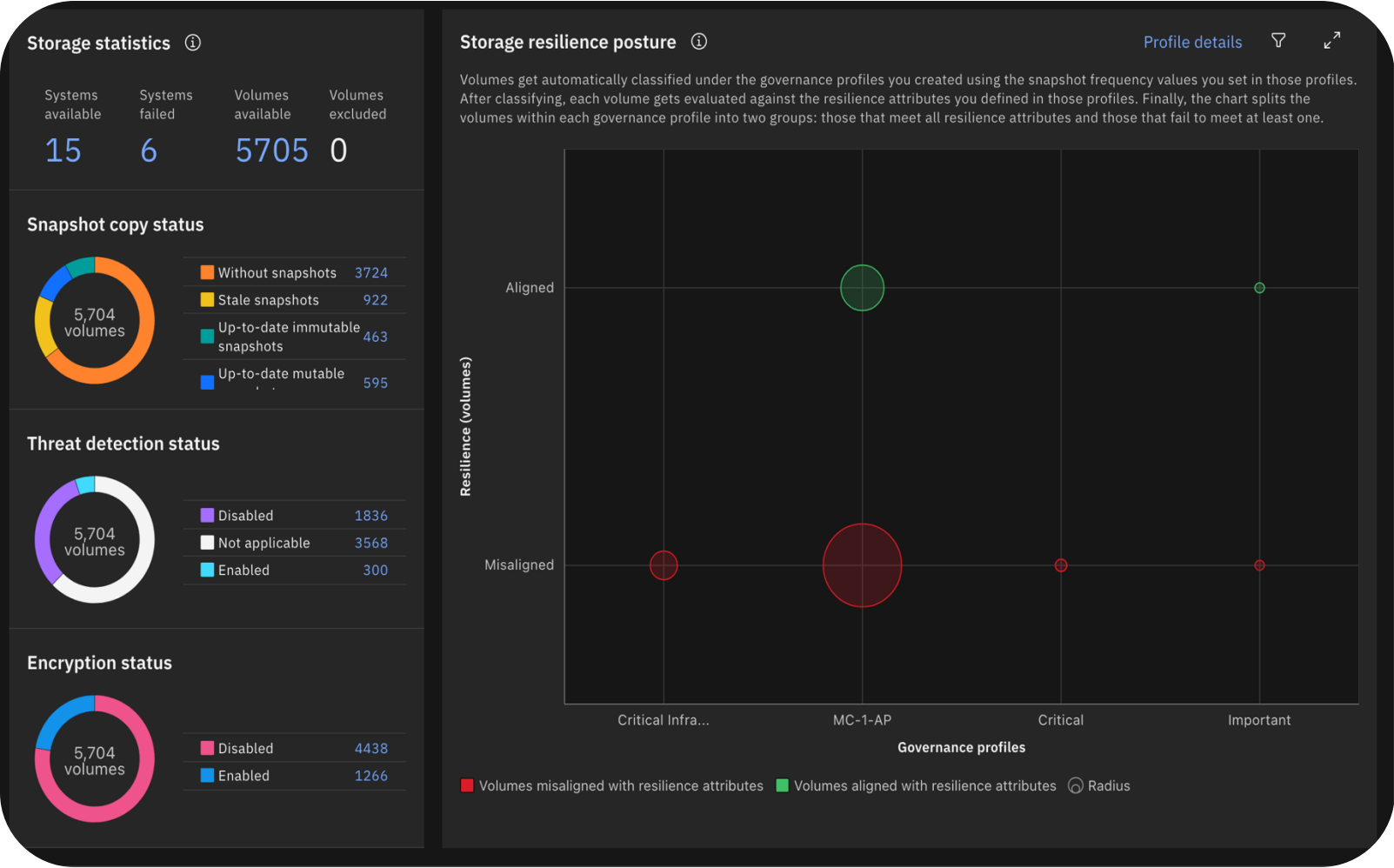
^ Start 60 Day Trial

Watch this short [Demo](#) to get a quick look at the solution!



Making the tool work for you

Take action and improve based on Defender's recommendations and findings. Visualize your storage and backup systems while gaining valuable insights about governance and posture.



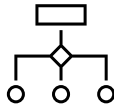
Safe and fast recovery

Trusted copy identification, and clean room orchestration to test backups or snapshots prior to recovery.



AI-enabled early threat detection

Layered sensors providing hardware, filesystem and backup-based detection that enables early response.



Data resiliency and compliance

Enables you to set the resiliency standard to meet compliance across your data storage estate.

Background

Multi Layered Ransomware Detection

