Red Hat Summit

Connect

Automate the Edge

Why do you need automation in order to succeed in edge computing initiatives?

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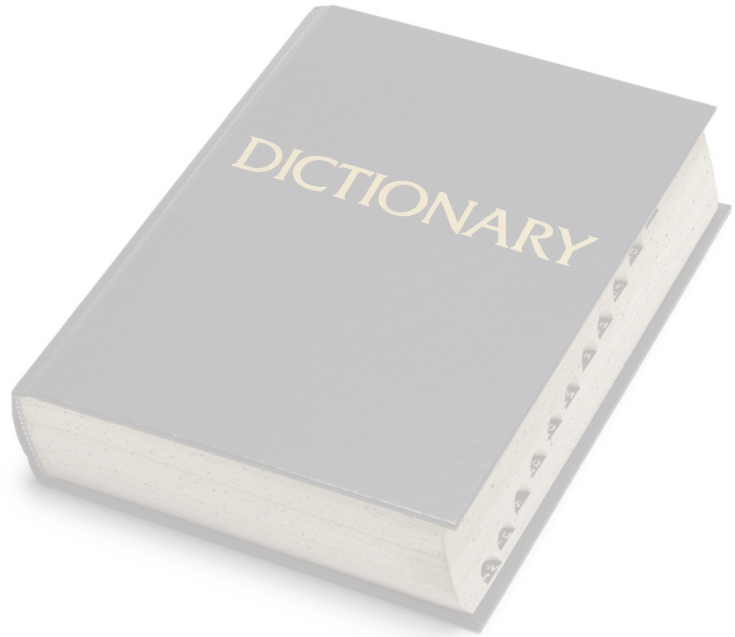
Edge Computing [ɛdʒ kəmˈpjuːtɪŋ]

(noun)

Edge computing is a distributed computing model in which data is captured, stored, processed and analyzed at or near the physical location where it is created. By pushing computing out closer to these locations, users benefit from faster, more reliable services while companies benefit from the flexibility and scalability of hybrid cloud computing.



The edge at a glance

According to IDC[1]:

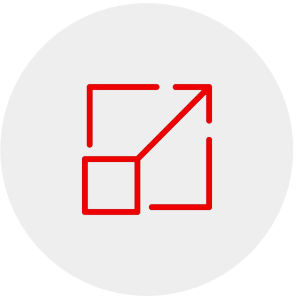
The total edge market will reach

$273.8B

by 2025

73%

of organizations view edge computing as a strategic investment



54%

of organizations plan to invest in edge within 24 months

1. IDC analyst connection, sponsored by Red Hat. "Automating the Last Mile: Ensuring Consistency and Scalability at the Edge," #US49051022, May 2022.

Use cases by sector

Transportation:
Help transportation companies meet customer demands.

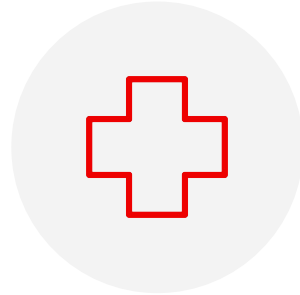
Retail:
Eliminate variables due to human error.

Industry 4.0:
Deploy and manage connected endpoints.

Telecommunications:
Modernize for simplicity, flexibility, and scalability.

Financial services and insurance:
Accelerate and de-risk new tools and services.

Smart cities:
Turn data collected at edge end points into action.



Healthcare:
Automate edge computing devices in healthcare.

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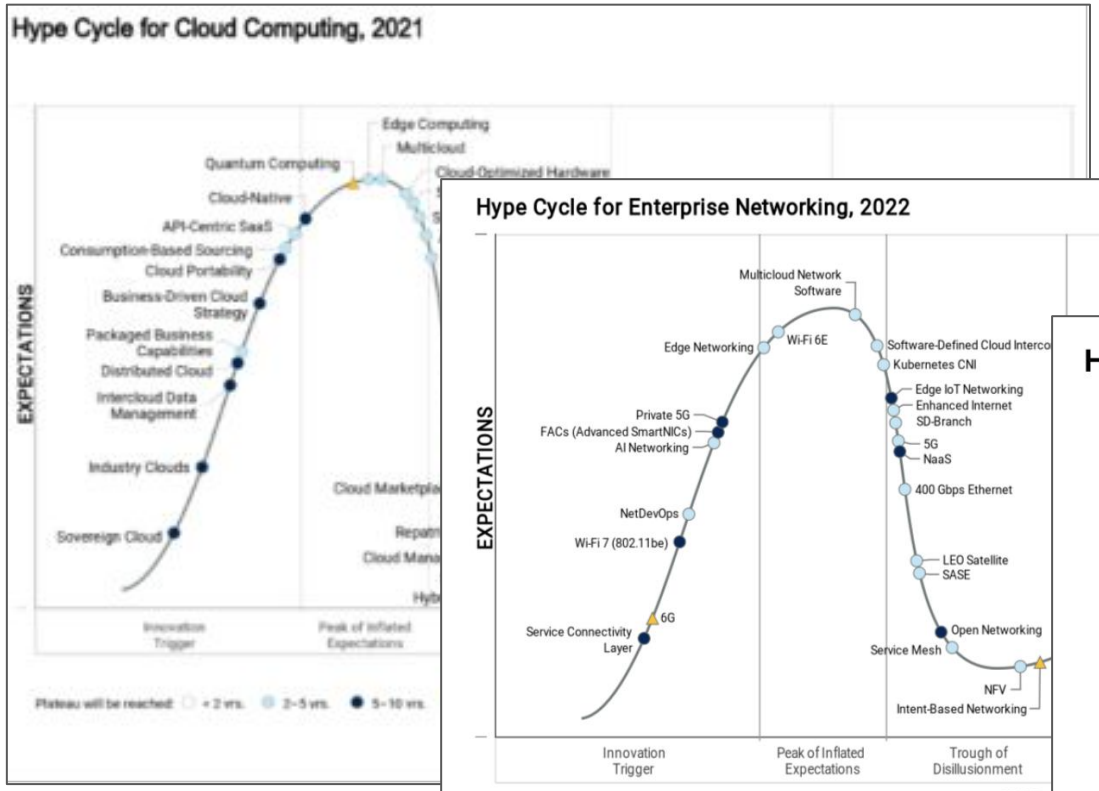

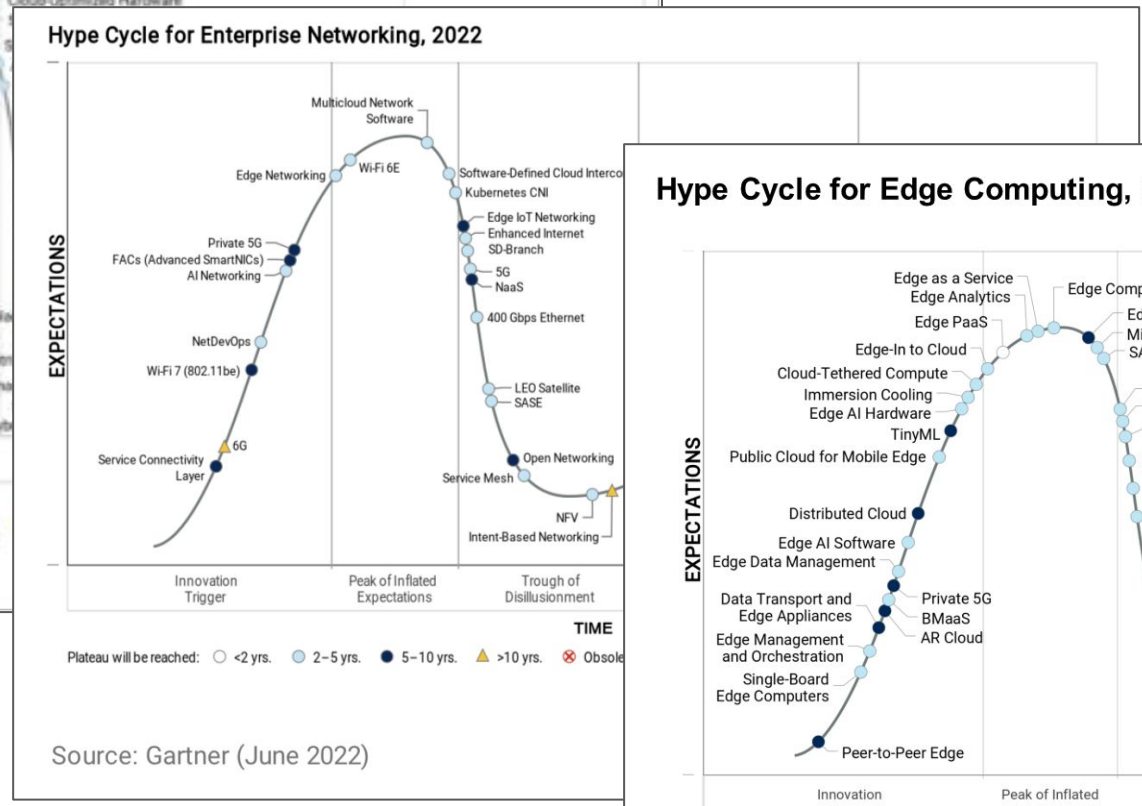

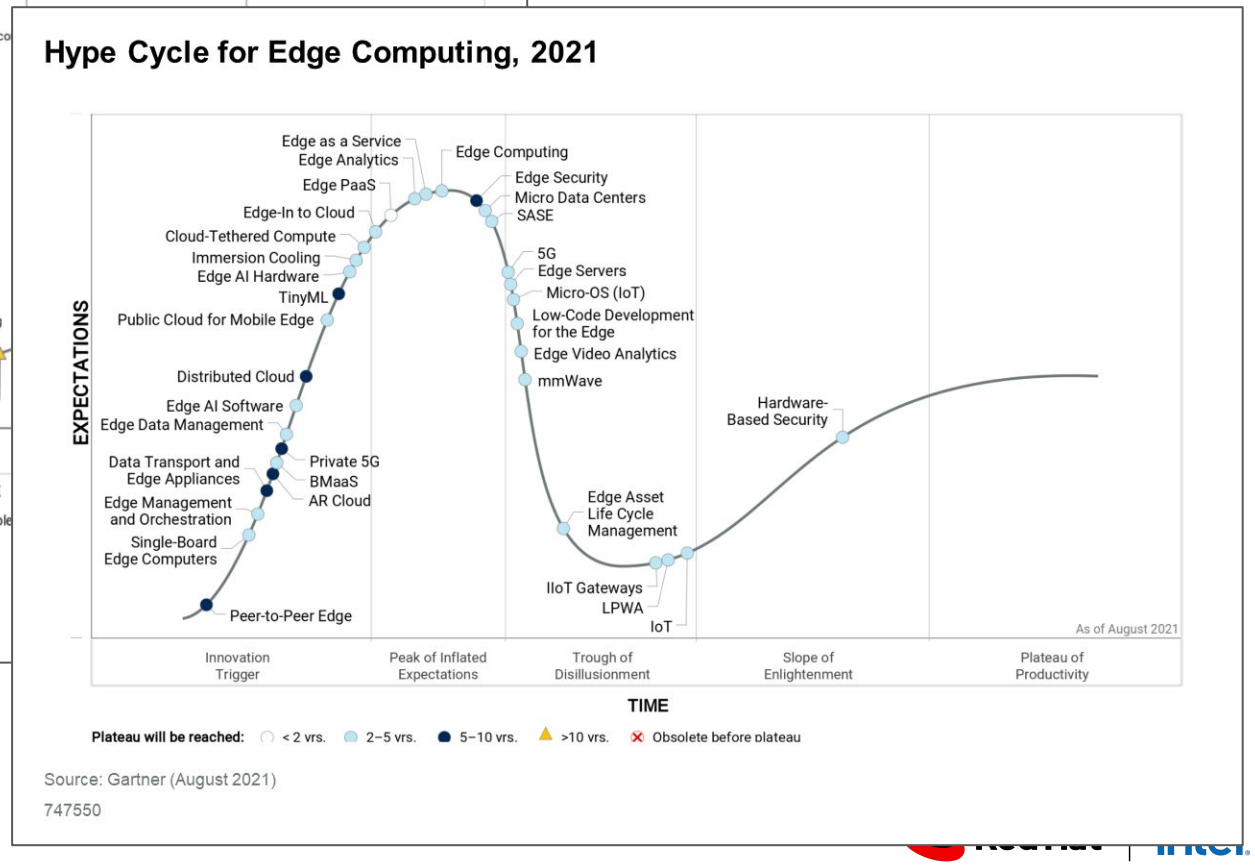

Source: https://blogs.gartner.com/bob-gill/2021/10/05/notes-from-the-edge-is-edge-computing-all-hype/

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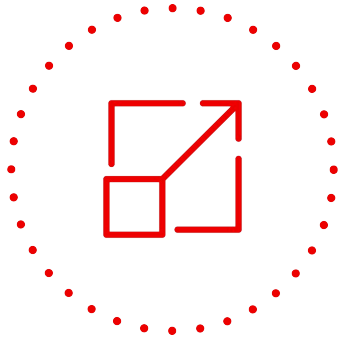
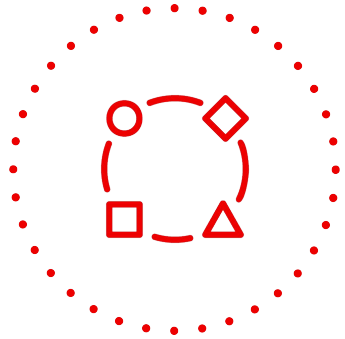
The complexities of edge computing



Scale

Need to manage up to hundreds of thousands of remote servers, network devices, and endpoint devices

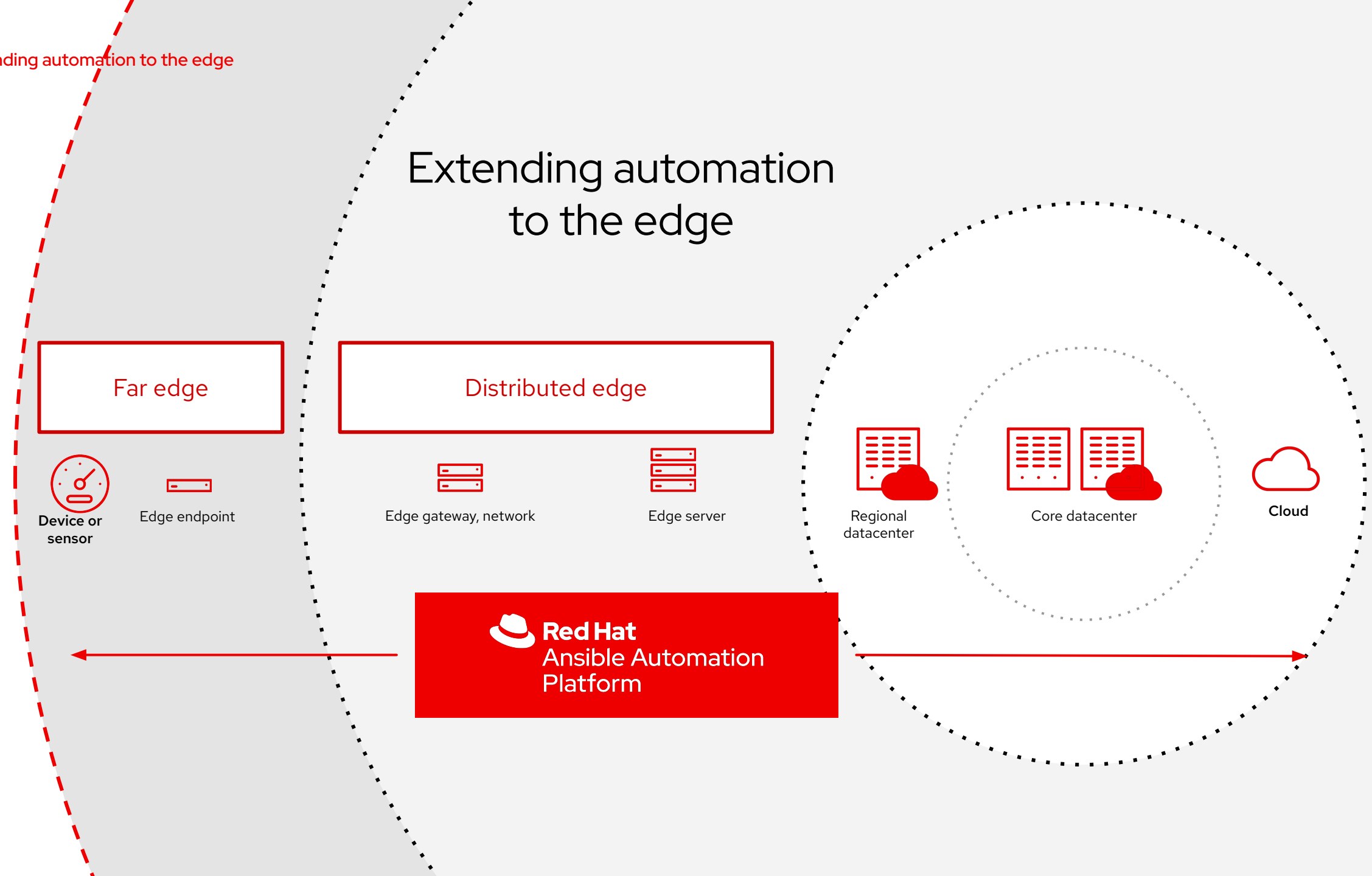


Interoperability

Ensure support for heterogeneous hardware and software environments

Consistency

Provide a consistent approach for developer and IT operations teams


Extending automation to the edge
Far edge
Distributed edge
Device or sensor
Edge endpoint
Edge gateway, network
Edge server
Regional datacenter
Core datacenter
Cloud
Red Hat Ansible Automation Platform

ALSTOM

Success story: Red Hat and Alstom are transforming railway communication

As communications networks and customer technology became more complex, Alstom wanted to improve signaling reliability, and railway network velocity.

Alstom implemented and standardized on Red Hat® Enterprise Linux®, and Wayside Data Management a secure platform that containerizes customer applications and uses Red Hat® Ansible® Automation Platform for life-cycle management.

https://www.redhat.com/en/about/press-releases/alstom-and-red-hat-team-transform-railway-communication-edge-computing-and-open-hybrid-cloud

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Success story: Improve delivery time for innovative digital services

"Staying competitive means we need to offer new, digital features and stable, timely services to all of our stores. The only way to achieve this goal is with a centralized automation platform like Red Hat Ansible Automation Platform."

https://www.redhat.com/en/resources/schwarz-group-case-study

SIEMENS
Ingenuity for life

Success story: Siemens improves communication security with Red Hat Ansible Automation Platform

Siemens AG was expanding its public key infrastructure (PKI) environments and communications, to help secure communications internally and with third-party partners and Internet of Things (IoT) solutions, resulting in increased complexity and workloads for their PKI team.

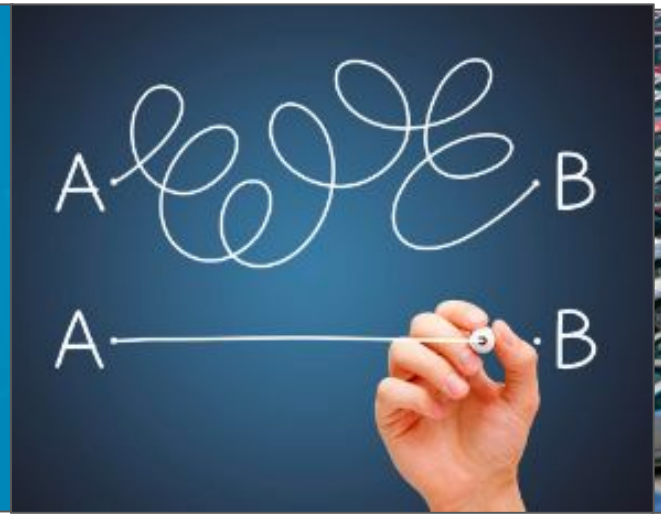
Success story: Schneider Electric use the capabilities of the cloud by automating everything

The French multinational corporation specializing in electrical equipment, together with Red Hat, called upon open source technologies to help manage the complex life cycle of Internet of Things (IoT) devices and deliver real-time analytics and factory optimization to the right device at the right time.

Next Steps?

Standardize

Select Use Cases



Keep Automation Simple

Think About Future

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