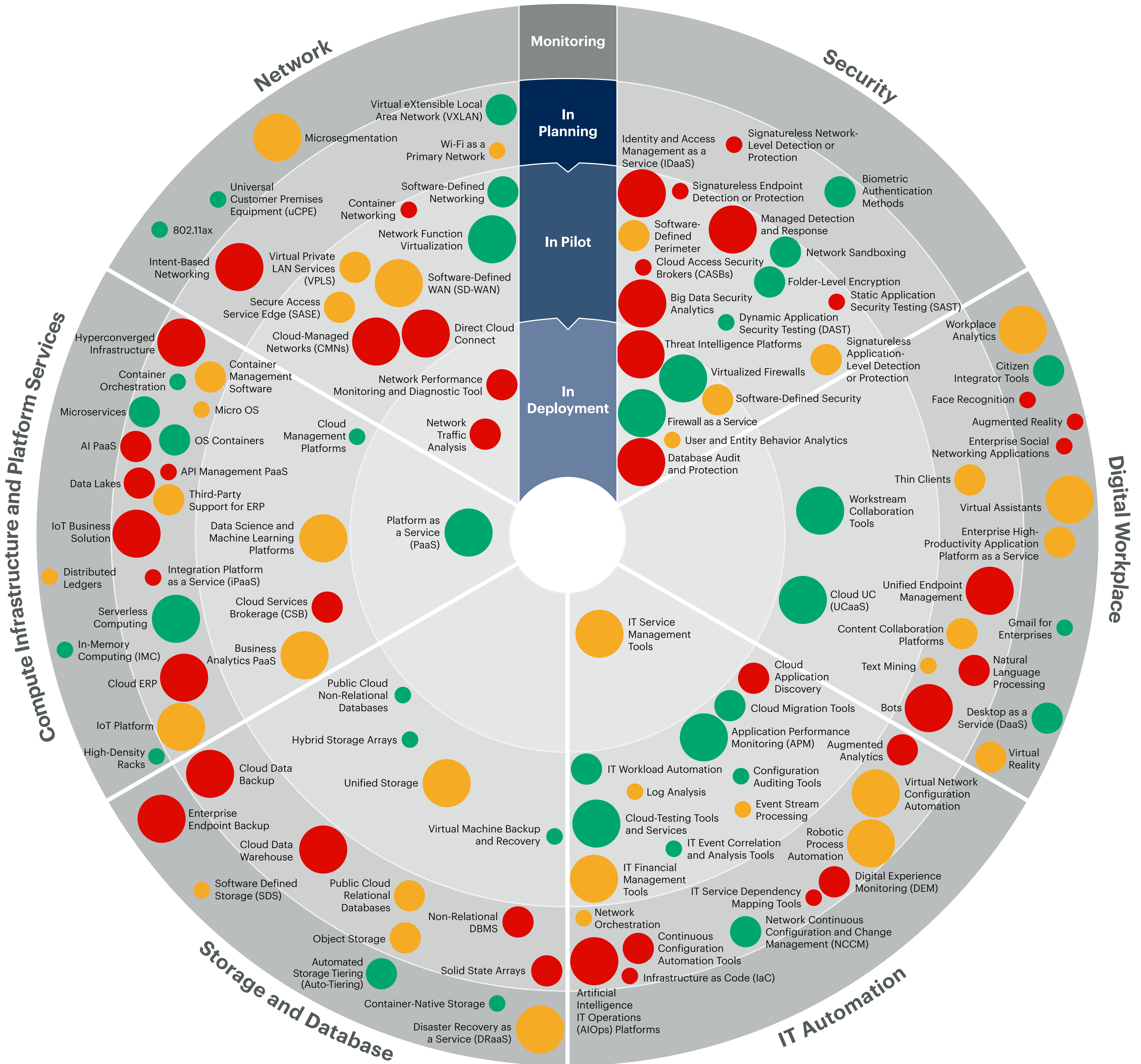


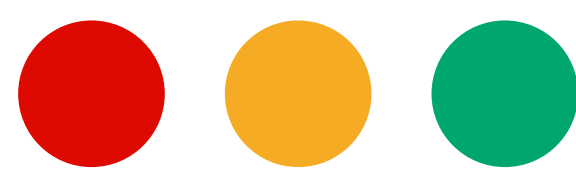
2020 to 2022

Emerging Technology Roadmap for Midsize Enterprises

IT professionals from 218 midsize enterprises (MSEs) collaborated to map the adoption of 112 emerging technologies by deployment stage, deployment risk and enterprise value.

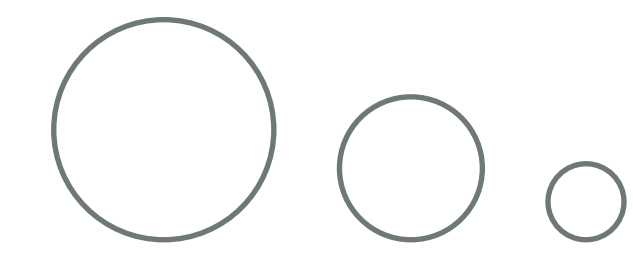


Deployment Risk



Based on analysis of where the technology represents potential risks in marketplace/vendor maturity, architectural fit/complexity, security risk, talent availability, implementation cost, regulatory compliance challenges and disruption to existing processes and services to risk factors.

Enterprise Value



Based on analysis of where technology has the potential to increase cost efficiency, improve speed and agility, enhance employee productivity and increase revenue through improved products and/or services

Key Takeaways

Remote Work

1. MSEs invest in network modernization initiatives to support a remote workforce: CIOs plan to modernize their network infrastructure through investments in container networking, secure access service edge (SASE), and virtual eXtensible local area network (VXLAN). MSEs plan to make faster progress than their large enterprise peers in deploying these technologies at scale, with 2021 as the expected timeline.

2. CIOs are piloting cloud-delivered secure access service edge (SASE) to secure increased remote work and secure edge investments: After successfully deploying cloud and software-defined WAN (SD-WAN) solutions, CIOs are now exploring SASE to evolve remote access and augment traditional VPN investments. Despite the high perceived risk, forty-nine percent of MSE CIOs are piloting or deploying SASE to prepare for edge technologies, like IoT, AR, and VR, and secure increased remote work.

Productivity

3. CIOs are democratizing tasks, including development, analytics, and integration, to business teams that crave speed and agility: Seventy percent of MSE CIOs plan to deploy citizen integrator tools by the end of 2020 to enable business teams to perform the simple application, data and process integration tasks while adhering to enterprise standards. CIOs expect data and application integration to be the first step toward democratizing traditional IT tasks and enabling citizen development, with plans to deploy low-code/no-code tools no later than 2022.

4. CIOs are investing in IT automation and AI tools to streamline product delivery and enhance employee productivity: MSE CIOs plan to pilot IT automation technologies such as IT event correlation and analysis, and IT workload automation. Bots and natural language processing (NLP), however, still remain in the planning phase. CIOs look to deploy these tools by 2021 to balance work between humans and machines, freeing up time for employees and boosting their productivity.

5. MSE CIOs plan investment in monitoring technologies to improve their understanding of the employee experience: More than fifty percent of MSE CIOs are piloting digital experience monitoring (DEM) application performance monitoring (APM) and artificial intelligence IT operations (AIOps) platforms to have a centralized view of performance. Additionally, 85% of MSE CIOs plan to deploy enterprise-wide workplace analytics solutions by 2021 to leverage machine learning algorithms to better understand employee experiences and diagnose root causes of productivity problems.

Operations

6. CIOs are investing in front-end operations technology while modernizing legacy back-end infrastructure: Three in four MSE CIOs plan to deploy serverless computing, OS containers, and microservices at scale by 2021 to support their cloud infrastructure and changing application development processes. CIOs view serverless computing as a low-risk, high-value investment that allows administrators to spend less time on infrastructure management.

7. Virtualization and edge investments prompt MSE CIOs to redesign security practices: MSE CIOs have caught up to their large enterprises in deploying virtualized firewalls, software-defined security, and firewall-as-a-service solutions to simplify the provisioning of security services. Four in five MSE CIOs plan to centralize the governance of policies that support the mixed workloads with different security environments by 2021.

Source: Gartner