





IDC FutureScape: Worldwide IT Industry 2020 Predictions



Frank Gens, SVP & Chief Analyst October 29, 2019

#IDCFutureScape



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Worldwide IT Industry Predictions Team 2020

Blue = **Q&A** participants

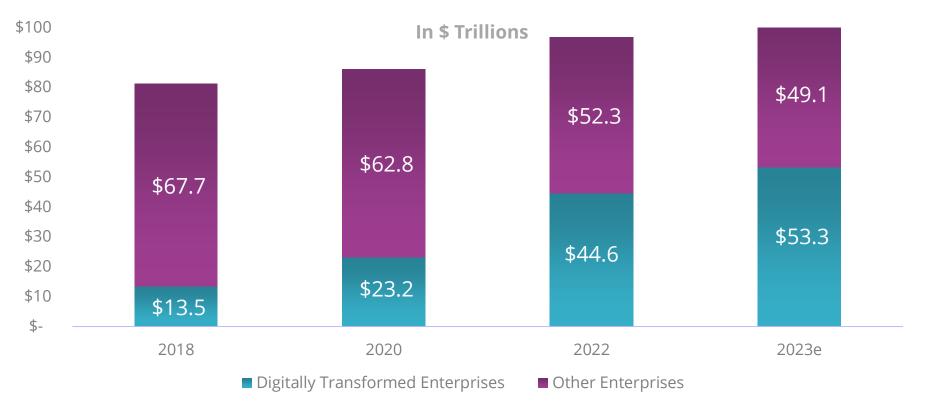
- Frank Gens
- Meredith Whalen
- Crawford Del Prete
- Philip Carnelley
- Larry Carvalho
- Gary Chen
- Arnal Dayaratna

- Frank Della Rosa
- Al Gillen
- Mary Johnston Turner
- Ritu Jyoti
- Satoshi Matsumoto
- Stephen Minton
- Deepak Mohan

- Ashish Nadkarni
- Mickey North Rizza
- Bob Parker
- Eileen Smith
- Rick Villars
- James Wester

Context: #DigitalSupremacy in the Global Economy Is Near

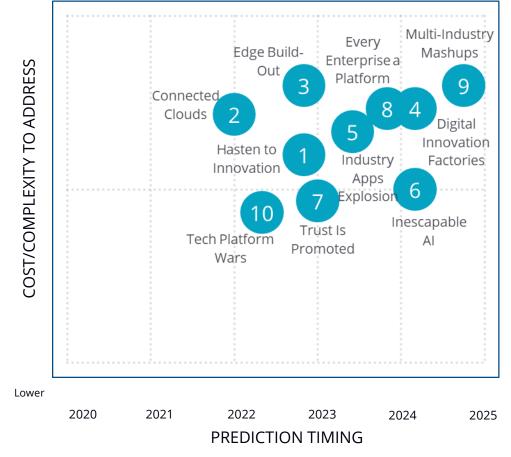
Worldwide Nominal GDP Driven by Digitally Transformed vs. Other Enterprises



Source: IDC Digital Economy Model, 2019; 2023e is extrapolated from the model's 2022 end year.

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Hasten to Innovation By 2023, over 50% of all ICT spending will be directly for digital transformation and innovation (up from 27% in 2018), growing at 17% CAGR (vs. -3.5% for the rest of ICT).

Connected Clouds By 2022, 70% of enterprises will integrate cloud management — across 2 their public and private clouds — by deploying unified hybrid/multicloud management technologies, tools and processes.

Edge Build-Out By 2023, over 50% of new enterprise IT infrastructure deployed will be at the edge rather than corporate datacenters, up from less than 10% today; by 2024, the number of apps at the edge will increase 800%.

Digital Innovation Factories By 2025, nearly two-thirds of enterprises will be prolific software producers with code deployed daily, over 90% of new apps cloud native, 80% of code externally sourced and 1.6 times more developers.

Industry Apps Explosion By 2023, over 500 million digital apps and services will be developed and deployed using cloud-native approaches, most of those targeted at industryspecific digital transformation use cases.

- Inescapable AI By 2025, at least 90% of new enterprise apps will embed AI; by 2024, over 6 50% of user interface interactions will use AI-enabled computer vision, speech, natural language processing and AR/VR.
 - Trust Is Promoted By 2023, 50% of the G2000 will name a Chief Trust Officer, who

near 20% revenue from expanding PaaS services.

orchestrates trust across functions including security, finance, HR, risk, sales, production and legal. Every Enterprise a Platform By 2023, 60% of the G2000 will have a digital developer

ecosystem with thousands of developers; half of those enterprises will drive 20%+ of digital revenue through their digital ecosystem/platform.



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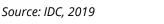
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Multi-Industry Mashups By 2025, 20% of revenue growth will be from "white space" offerings that combine digital services from previously unlinked industries, and one-fifth of partners are from previously unlinked industries.

Tech Platform Wars By 2023, the Top 5 public cloud megaplatforms will consolidate at

least 75% of market share; the Top 10 pureplay SaaS vendors will generate an average of

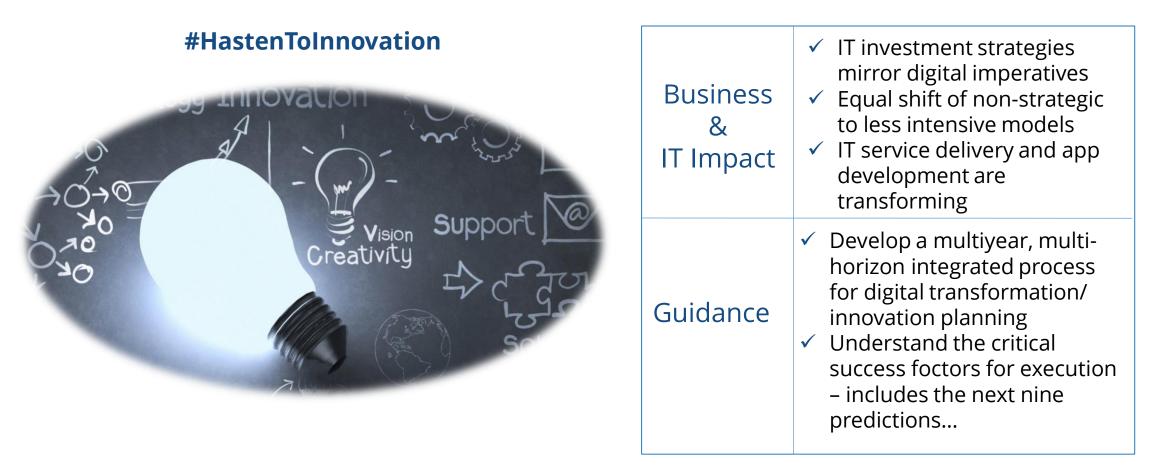


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Prediction 1: By 2023, over 50% of all ICT spending will be directly for digital transformation and innovation (up from 27% in 2018), growing at 17% CAGR (vs. -3.5% for the rest of ICT)





DC FutureScape 2020

Prediction 2: By 2022, 70% of enterprises will integrate cloud management — across their public and private clouds — by deploying unified hybrid/multicloud management technologies, tools, and processes

#ConnectedClouds



Business & IT Impact	 The cloud control plane is becoming strategic Scale and agility will be critical multicloud solution attributes API-driven, SaaS-based offerings will dominate
Guidance	 Prioritize SaaS-based management & governance offerings ID relevant and measurable business KPIs to drive multicloud management Bimodal IT is dead - time to reintegrate all IT around a common digital-first model



Prediction 3: By 2023, over 50% of new enterprise IT infrastructure deployed will be at the edge rather than corporate datacenters, up from less than 10% today; by 2024, the number of apps at the edge will increase 800%

#EdgeBuildout



Business & IT Impact	 Data governance and asset management transform to fit large-scale, distributed IT Edge scale will drive the move to more standardized IT configurations
Guidance	 Modernize IT to virtualized, containerized and software- defined to support edge Consider new datacenter partners that can support the edge build out and ops Put high priority on optimizing infrastructure and apps communication costs



Prediction 4: By 2025, nearly two-thirds of enterprises will be prolific software producers with code deployed daily, over 90% of new apps cloud native, 80% of code externally sourced, and 1.6 times more developers

#DigitalInnovationFactories



Business & IT Impact	 Traditional IT & digital development teams unify Development cadence soars Developer role expands from builder to - increasingly - curator and integrator Two-way OSS becomes core
Guidance	 Prepare for very big culture changes Invest heavily in automation and orchestration systems Engage with OSS communities, create an OSS office



Prediction 5: By 2023, over 500 million digital apps and services will be developed and deployed using cloud-native approaches, most of those targeted at industry-specific digital transformation use cases

#IndustryAppsExplosion



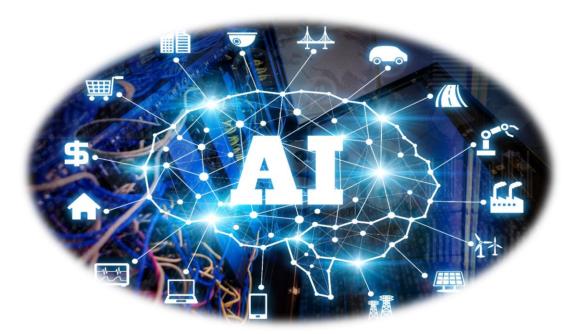
Business & IT Impact	 New apps & services will define new minimum competitive requirements Democratization of development expands App management will be strained by the new scale
Guidance	 Develop strong competitive intelligence into your industry's DX landscape Integrate "digital innovation factory" into core product management & planning Ensure "all hands are on deck" – to scale up the digital innovation workforce



() IDC FutureScape 2020

Prediction 6: By 2025, at least 90% of new enterprise apps will embed AI; by 2024, over 50% of user interface interactions will use AI-enabled computer vision, speech, natural language processing, and AR/VR

#InescapableAI



Business & IT Impact	 A strategic minority of Al- enabled applications over the next five years will be "Al-led" Al-powered UI becomes key for great user experience Scrutiny of data sources (and quality) will rise
Guidance	 Identify your enterprise's key AI-led apps and services Establish joint business-IT governance around AI ethics and regulatory issues Prioritize development of new user interfaces leveraging emerging AI capabilities



DC FutureScape 2020

Prediction 7: By 2023, 50% of the G2000 will name a Chief Trust Officer, who orchestrates trust across functions including security, finance, HR, risk, sales, production, and legal

#TrustIsPromoted



Business & IT Impact	 ✓ By 2025, two-thirds of G2K boards will demand a formal trust initiative ✓ By 2025, it will be required to audit algorithms ✓ By 2025, 40% of F1000 will seek supplier trust scores
Guidance	 Create trust roles to establish accountability for managing/maintaining trust guidelines Evaluate digital initiatives to assess trust risks, impact Establish trust assessment best practices and tools to monitor your enterprise's trust among stakeholders



Prediction 8: By 2023, 60% of the G2000 will have a digital developer ecosystem with thousands of developers; half of those enterprises will drive 20%+ of digital revenue through their digital ecosystem/platform

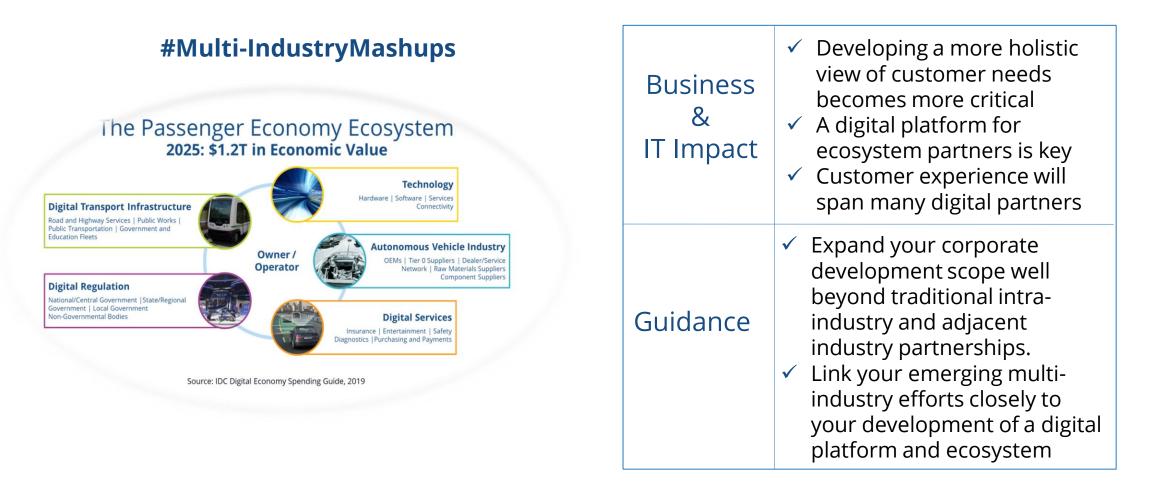
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#EveryEnterpriseaPlatform

Business & IT Impact	 Enterprises will need to operate well as a digital service providers Enterprises will also leverage others' platforms and marketplaces The IT org will play a key role
Guidance	 Name a senior executive to lead, develop this business Identify critical systems and solutions to support this emerging part of business Leverage others' platforms and marketplaces, including OSS communities



Prediction 9: By 2025, 20% of revenue growth will be from "white space" offerings that combine digital services from previously unlinked industries, and one-fifth of partners are from previously unlinked industries





Prediction 10: By 2023, the Top 5 public cloud megaplatforms will consolidate at least 75% of market share; the Top 10 pureplay SaaS vendors will generate an average of near 20% revenue from expanding PaaS services

#TechPlatformWars Choices for public cloud platforms will narrow Business Multiplatform technologies & and platform providers will IT Impact emerge, enabling flexibility ✓ A growing number of SaaS -Multicloud Deloitte players will expand PaaS Reonty Choose your core cloud \checkmark Sarvicency pp-Centric megaplatform(s) wisely Adobe latforms ✓ Put multicloud technologies high on your technical Guidance Cloud standards list ✓ Select SaaS providers that are successfully delivering platform services and modular apps



#DigitalFirstEnterprise: Hyperscale, Hyperspeed & Hyperconnected

10X+ increase in Apps/ServicesPace of deployment = 50-100X+70% with Connected Clouds90%+ New Apps = Cloud NativeMulti-Industry Mashups = 20% of Revenue Growth80% code & data from external providers90%+ New Apps Embed AI3rd Party Developers = 1000s+APIs Generate 20% of Digital RevenueEdge Apps up 800%Edge Infrastructure = 50%+



Today's Speakers





Frank Gens SVP & Chief Analyst



Mary Johnston Turner VP, Cloud Management



Larry Carvalho Director, PaaS



Ritu Jyoti VP, Artificial Intelligence



ANALYZE THE FUTURE

Richard Villars VP, Datacenter & Cloud

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Frank Della Rosa Director, Cloud & SaaS



Robert Parker SVP, Enterprise Apps, Data Intelligence, Services & Industries

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