Public Sector Reacts Positively to the Changes in IT Consumption

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Analyze the Future

Methodology

The data contained in this InfoBrief is from an IDC Government Insights survey, which was conducted with 100 government and education professionals. Study respondents were IT decision makers or influencers, and knowledgeable about their organization's efforts in at least 2 of the following areas: cloud, networking, applications, security, and mobility. Participants were asked multiple questions, focused on current issues and concerns of both IT departments and business issues across their organizations.

The intent of the study, conducted from February - March 2014 via an online survey, was to gain clear insights into how IT planners are preparing for upcoming changes to their enterprise computing environments.

The results of our survey indicated that government and education IT managers are both struggling to deal with the complexities introduced by the consumerization of IT, and also looking to take advantage of the increased functionality brought forth by these changes. This InfoBrief report highlights some of these new opportunities, while stressing the importance of building a flexible, high- performance network that can help organizations adapt to these changes.

Immediate Take-Aways for Government and Education

- ✔ **Owning and operating a data center will not change quickly** - but will change significantly over time.
- ✔ **Many government and education organizations will need to make enterprise architecture changes** before they can support a range of external IT services.
- ✔ **Education organizations and government agencies want 'application aware' network solutions,** though they don't always use that term to describe their needs.
- ✔ **Innovative IT growth areas are creating an influx of data**, and public sector organizations are being forced to make new IT architecture decisions for their systems.
- ✔ **Mobile growth and cloud-based solutions are driving them** (sometimes reluctantly) in new directions.
- ✔ **They are looking for good ROI examples** in order to justify investments.

The Explosion of Data and Devices are Triggering the Need for IT Innovation

New edge devices create a big influx of new data.

Metro or other dedicated "Small Cell Networks" collect data and feed it into public sector networks, leveraging mobile solutions.

"Big Data" from many sources feeds into public sector networks.

New data and new apps often reside in the cloud to help control costs.

All of these fall into the lap of public sector IT planners and network administrators.

IMPACT:
More flexibility is required from public sector networks.

Application aware network solutions are needed.

Public Sector is Entering the "Third Platform" Era

The "Third Platform":

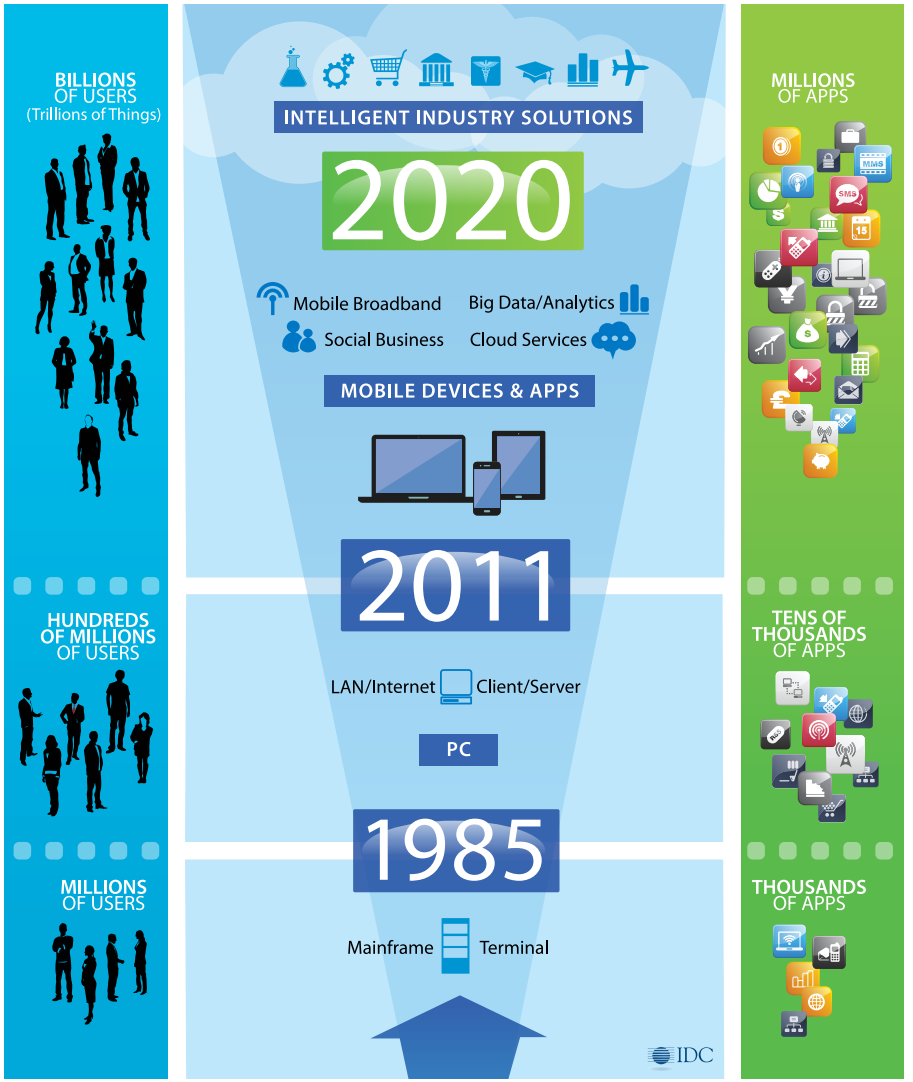
- Based on cloud solutions and mobile devices
- Breaks up traditional client/server
- "Everything as a service"
- Everything available on mobile devices
- Mash-up capable environments
- Intelligent/business solutions evolving on top of the 3rd platform

The "Second Platform":

- Client server with PCs, local area networks, servers and hundreds of millions of users
- Lasted through the growth of the Internet, up until a few years ago

The "First Platform":

- Mainframes and terminals, with millions of users
- Lasted until the mid 80's

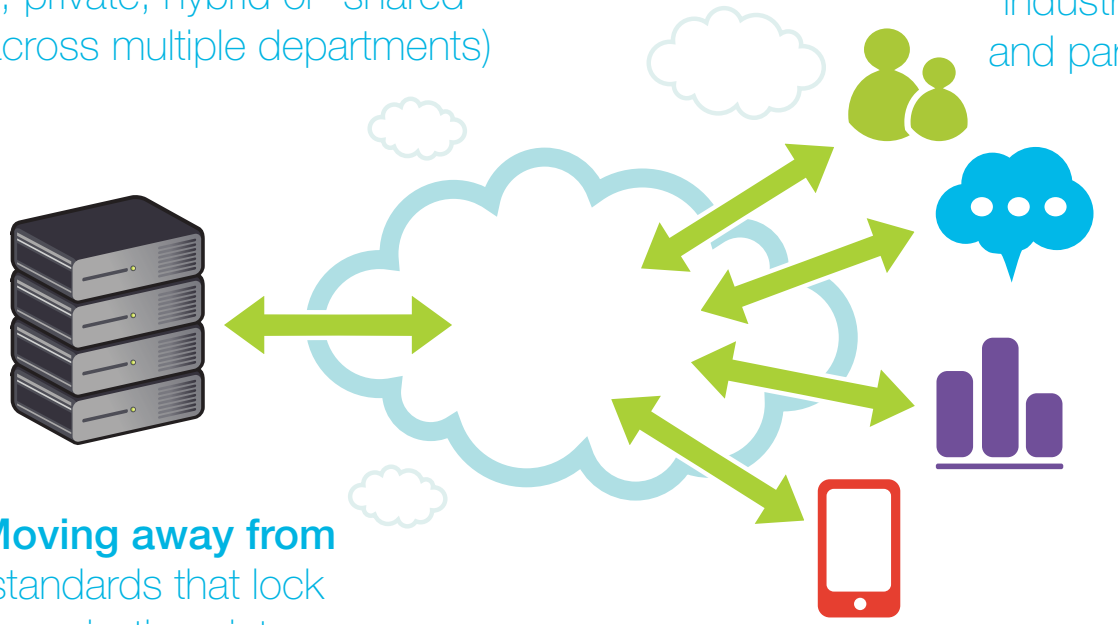


Current Development Trends

Hosting in the cloud (clouds can be public, private, hybrid or "shared services" across multiple departments)

Adhering to evolving industry, community, and partner standards

Outsourcing application management and device management



Standardizing as much as possible across the enterprise

Moving away from standards that lock organizations into a specific service provider

Developing for mobile first (then expanding to include desktop)

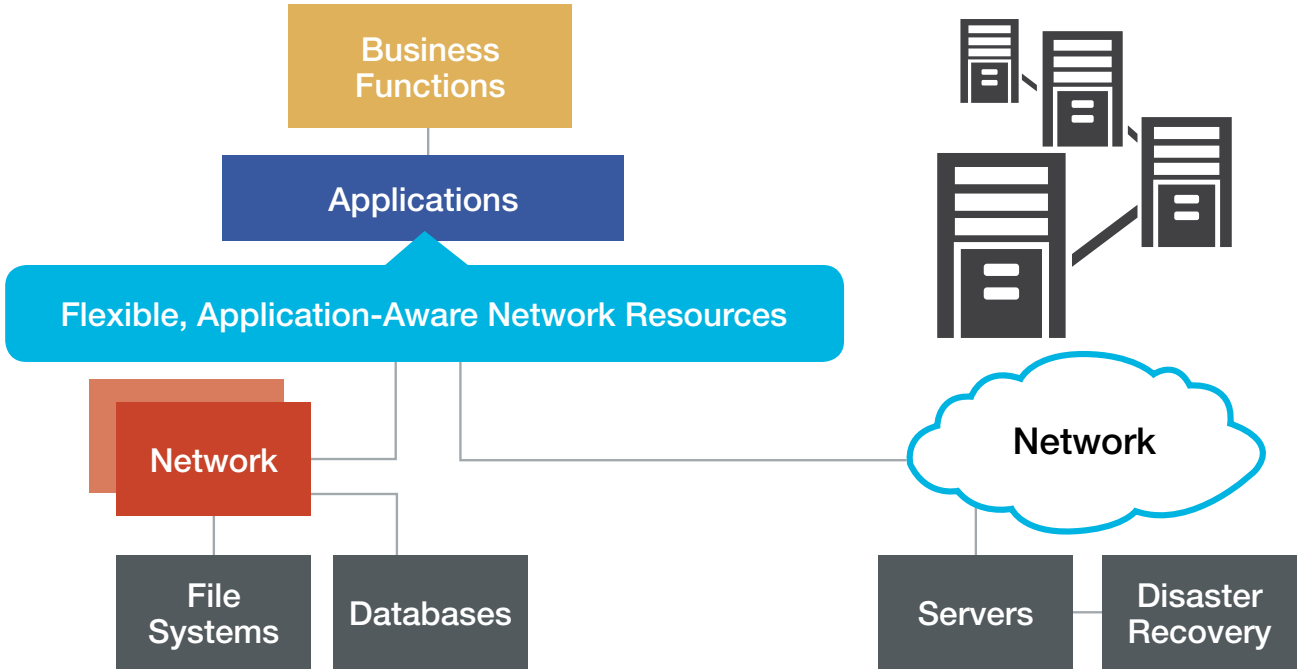
Software-Defined Networks

SDN refers to a type of network architecture that separates the control and data segments of networking functions, allowing things like network intelligence and policy making to be handled by an application, which essentially functions as a "controller." There are multiple models for this type of network programmability and automated management.

The convergence of cloud and mobility has advanced the need for SDN to become an application aware or application centric network.

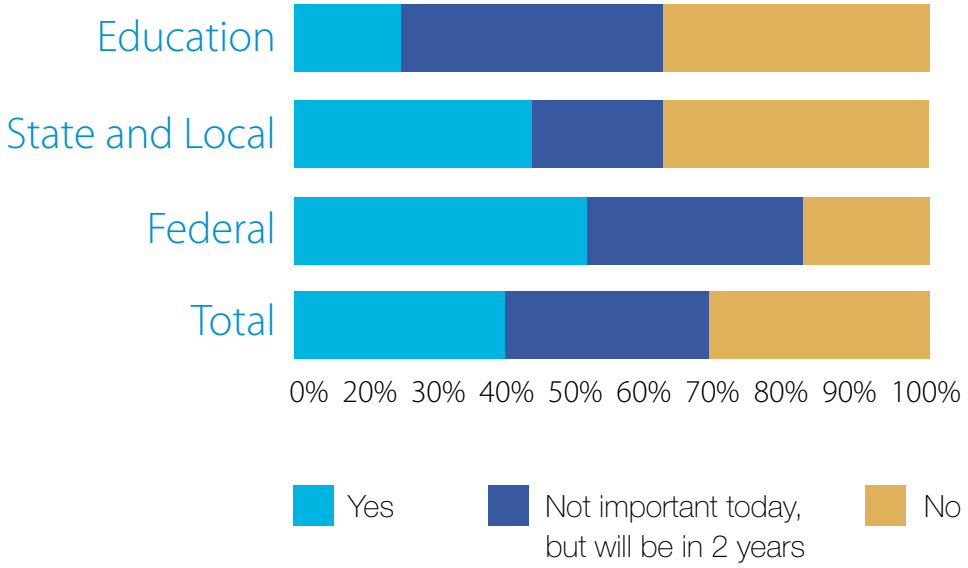
Application Centric

As consumption has changed, it has driven the need for access to resources anytime and anywhere from both private and public IT resources creating the "hybrid cloud" environment. Application-centric infrastructure (ACI), an evolution of software-defined networking with open APIs, gives public sector organizations resources that can be located in various places, including providers of speciality cloud-based services.



Measuring Application Centric Infrastructure

A clear majority of respondents state that software-defined networking , which is evolving toward ACI, is either currently important to their organization or it will be important within two years.



Is software defined networking currently important to your organization? (N=100)

All U.S. Public Sector Respondents

Mobile Proliferation

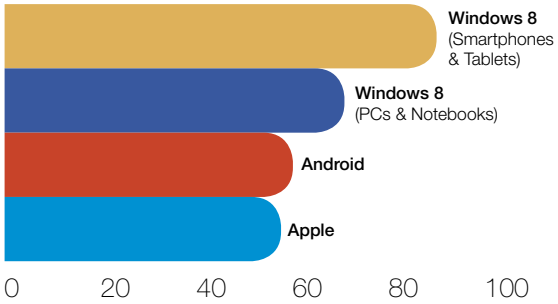
38%

of respondents have 1/3 or more of their IT applications reachable and fully interactive with mobile devices.

46%

Expect to support a BYOD policy.

The majority of respondents will continue to support multiple devices.



% plan to maintain / add support.

Movement Toward Cloud

1 OUT OF 3

respondents expect a third or more of their applications to be moved to the cloud.

19%

are using Infrastructure as a Service.

SOA

32% are moving towards a services oriented architecture.

Data Driven Investments

70%

of respondents said increases in data are a key driver of future IT spending

54% READY

54% of respondents say networks are not ready to handle an influx of new devices, applications and services and the ensuing increase in data.

56%
need more bandwidth

43%
need smart programmable switches and hubs

to adjust to new IT services models.

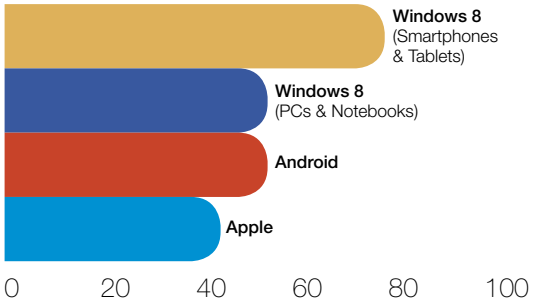
All U.S. Federal Government Respondents

Mobile Proliferation

41% of respondents have 1/3 or more of their IT applications reachable and fully interactive with mobile devices.

38%
Expect to support a BYOD policy.

The majority of respondents will continue to support multiple devices.



% plan to maintain / add support.

Movement Toward Cloud

1 OUT OF 3
respondents expect a third or more of their applications to be moved to the cloud.

16%
are using Infrastructure as a Service.

SOA
56% are moving towards a services oriented architecture.

Data Driven Investments

75%
of respondents said increases in data are a key driver of future IT spending

50% READY

50% of respondents say networks are not ready to handle an influx of new devices, applications and services and the ensuing increase in data.

59% need more bandwidth

44% need smart programmable switches and hubs

to adjust to new IT services models.

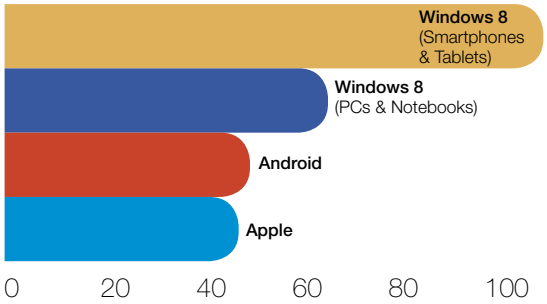
All U.S. State and Local Government Respondents

Mobile Proliferation

32% of respondents have 1/3 or more of their IT applications reachable and fully interactive with mobile devices.

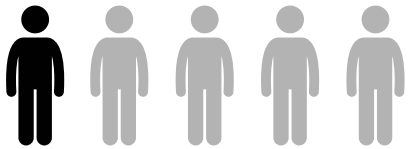
38%
Expect to support a BYOD policy.

The majority of respondents will continue to support multiple devices.



% plan to maintain / add support.

Movement Toward Cloud



1 OUT OF 5
respondents expect a third or more of their applications to be moved to the cloud.

15%
are using Infrastructure as a Service.

24% are moving towards a services oriented architecture.

Data Driven Investments

68%
of respondents said increases in data are a key driver of future IT spending

68% READY

68% of respondents say networks are not ready to handle an influx of new devices, applications and services and the ensuing increase in data.

47%
need more bandwidth

38%
need smart programmable switches and hubs

to adjust to new IT services models.

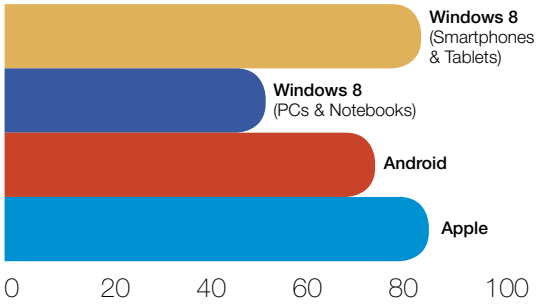
All U.S. Education Respondents

Mobile Proliferation

41% of respondents have 1/3 or more of their IT applications reachable and fully interactive with mobile devices.

62%
Expect to support a BYOD policy.

The majority of respondents will continue to support multiple devices.



% plan to maintain / add support.

Movement Toward Cloud

1 OUT OF 2
respondents expect a third or more of their applications to be moved to the cloud.

27%
are using Infrastructure as a Service.

SOA
18% are moving towards a services oriented architecture.

Data Driven Investments

68%
of respondents said increases in data are a key driver of future IT spending

44% READY

44% of respondents say networks are not ready to handle an influx of new devices, applications and services and the ensuing increase in data.

62%
need more bandwidth

47%
need smart programmable switches and hubs

to adjust to new IT services models.

Security Issues

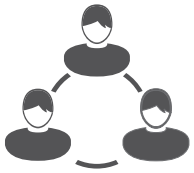
Perception vs. Reality of Security Issues with Cloud

- "In the cloud" doesn't mean unsecured
- Most cloud providers are very quick to apply security updates, patches and quick configuration management
- Cloud providers are able to provide highly secure connections and enhanced data protection, often with greater reliability than what individual data centers can build for themselves

But….

- Hackers may target big cloud providers for a "big win"
- Business continuity is part of security — if you can't reach your cloud provider, you can't conduct business

The Bottom Line



Public sector executives and managers want specific computing solutions. If they can't get these internally, they will look for them elsewhere.

- IT Departments don't like the idea of "shadow IT"
- Line of Business (LOB) executives and managers see shadow IT as a way of getting their jobs done
- Thus there is an ongoing dichotomy between IT departments and LOB executives and managers

IT executives and managers seek to maintain adequate control over their networks, but they don't always have the tools to do so.

- Mobile growth and cloud-based solutions are driving them (sometimes reluctantly) in new directions
- Many realize they need major upgrades to both data centers and networks
- Owning and operating a data center will not change quickly – but will change significantly over time
- Many government and education organizations will need to make enterprise architecture changes before they can support a range of external IT services

The Bottom Line

Because IT consumption is changing, progressive public sector organizations need to work toward an application-centric infrastructure (ACI). ACI will provide the level of flexibility organizations need to assure network control and sustainable IT growth.

- Look for good ROI examples among education organizations and government agencies in order to justify investments
- Seek "application aware" network solutions, although your organization may not always use that term to describe its needs
- Software-defined networks give many public sector organizations the flexibility they need to address these issues, and ACI help ramp this flexibility up to new levels of functionality

An ACI can provide a solid foundation for an organization's expansion into the Third Platform era. ACI supplies much needed flexibility while also providing support for new IT solutions as they are added to an organization's IT portfolio.