



20. november 2019

Hewlett Packard
Enterprise

Kortreiste data og digital kriseberedskap

Stig Alstedt
Teknologidirektør
HPE Norge

Hardware.
It's not a dirty word.





Hewlett Packard Enterprise

Ingress

11:15–12:00

Kortreiste data og digital kriseberedskap

[Stig Alstedt](#), HPE Norge AS

Det er allerede lenge siden skybasert IT ble allemannseie. Men betyr det at den har blitt voksen? Hva kan være konsekvensene av å benytte seg av slike tjenester? Vi tar en titt på muligheter og utfordringer – med særlig fokus på ting som er relevant for oss som bor i Norge.



Agenda

Intro: Hva skal vi høre om i dag? *Kan* vi ikke dette?

Hva er *egentlig* sky?

Hva har *forandret* seg i det siste?

Hvorfor skal du *bry deg*?

[Hvilke *alternativer* har du til (utenlandsk) *public cloud*?]



«Cloud»



Gartner®





GARTNER

Chassiservice

Chassiservice

Cloud Computing Primer for 2019

Published 5 February 2019 - ID G00710074 - 9 min read



David Smith
Distinguished VP Analyst

Initiatives: [Cloud Computing](#)

Cloud computing is a broad topic that affects virtually all aspects of IT.

[...]

Cloud computing has entered its second decade

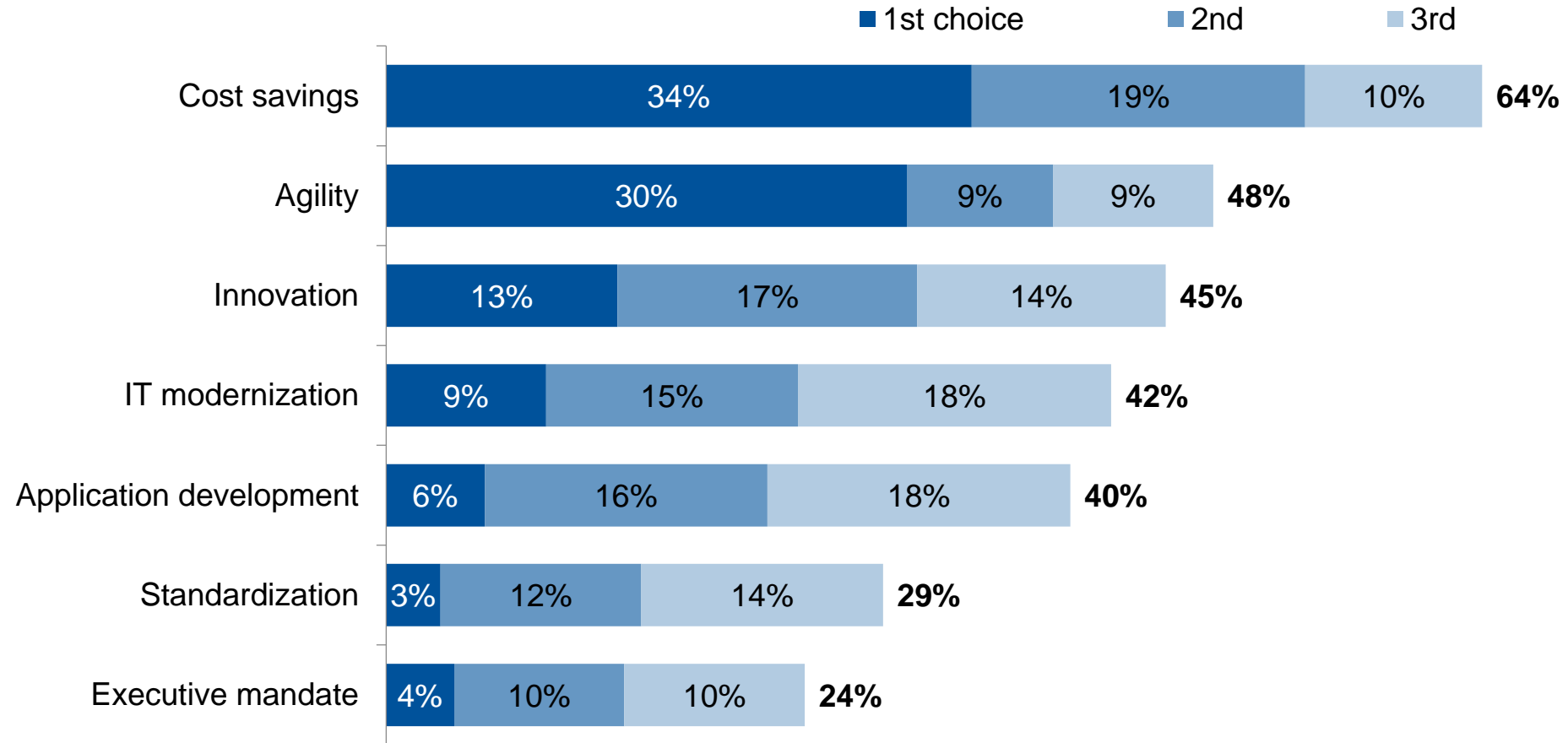
[...]

Despite its longevity, cloud computing still suffers from confusion and hype.

[...]

nontechnical concerns (for example, **cost, security and governance) continue to muddle the opinions**

Cost savings and agility are the top reasons for using public cloud



Base: Use public cloud (Q03), excludes "don't know"

Q. What are the top three reasons for using public cloud services?



Hva er egentlig sky?

NIST

**National Institute of
Standards and Technology**

U.S. Department of Commerce

Special Publication 800-145

The NIST Definition of Cloud Computing

Essential Characteristics:

On-demand self-service. A consumer can unilaterally provision computing capabilities, such as server time and network storage, as needed automatically without requiring human interaction with each service provider.

Broad network access. Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (e.g., mobile phones, tablets, laptops, and workstations).

Resource pooling. The provider's computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand. There is a sense of location independence in that the customer generally has no control or knowledge over the exact location of the provided resources but may be able to specify location at a higher level of abstraction (e.g., country, state, or datacenter). Examples of resources include storage, processing, memory, and network bandwidth.

Rapid elasticity. Capabilities can be elastically provisioned and released, in some cases automatically, to scale rapidly outward and inward commensurate with demand. To the consumer, the capabilities available for provisioning often appear to be unlimited and can be appropriated in any quantity at any time.

Measured service. Cloud systems automatically control and optimize resource use by leveraging a metering capability¹ at some level of abstraction appropriate to the type of service (e.g., storage, processing, bandwidth, and active user accounts). Resource usage can be monitored, controlled, and reported, providing transparency for both the provider and consumer of the utilized service.

Hvordan ting henger sammen



HYBRID IT

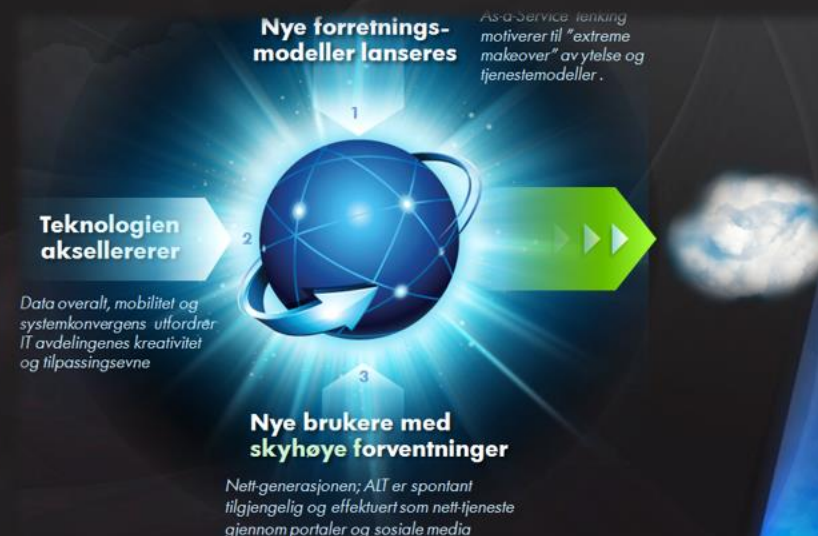




Hva har forandret seg i det siste?
(Det er faktisk ikke så lenge siden vi begynte)

Cloud Computing – Nettskyen – Fremtidens IT-avdeling??

Krevende markeder, mobilitet og forventninger om selvbetjent IT har fått enkelte til å utpeke "Skyen" til fremtidens IT-avdeling!



HVOR STÅR SKYEN I NORGE? EN STATUSRAPPORT

Anita Krohn Traaseth & Stig Alstedt
HP Software

REFLEKSJON

- En skyløsning krever fortsatt at du har en plan B (og C).
- Begrepet «backup» er til syvende og sist ditt ansvar.
- Alt du gjør i skyen er fullstendig synlig for offentligheten – enten du vil eller ikke.
- Tre ting til:
 - Sikkerhet
 - Sikkerhet
 - Sikkerhet

App Definition & Development

Database

Streaming & Messaging

Application Definition & Image Build

Continuous Integration & Delivery

Platform

Certified Kubernetes - Distribution

Certified Kubernetes - Hosted

Certified Kubernetes - Installer

PaaS/Container Service

Observability and Analysis

Monitoring

Logging

Tracing

Chaos Engineering

Orchestration & Management

Scheduling & Orchestration

Coordination & Service Discovery

Remote Procedure Call

Service Proxy

API Gateway

Service Mesh

Certified Kubernetes - Installer

PaaS/Container Service

Logging

Tracing

Chaos Engineering

Runtime

Cloud-Native Storage

Container Runtime

Cloud-Native Network

PaaS/Container Service

Provisioning

Automation & Configuration

Container Registry

Security & Compliance

Key Management

Serverless

Cloud

Public

This landscape is intended as a map through the previously uncharted terrain of cloud native technologies. There are many routes to deploying a cloud native application, with CNCF Projects representing a particularly well-traveled path

l.cncf.io

CLOUD NATIVE COMPUTING FOUNDATION

CLOUD NATIVE Landscape


Redpoint Amplify PARTNER

Special

Kubernetes Certified Service Provider

Kubernetes Training Partner

SpareBank 1





Hvorfor skal du bry deg?

Gartner: *Kostnader, Sikkerhet, ~~Styringsmodell~~*

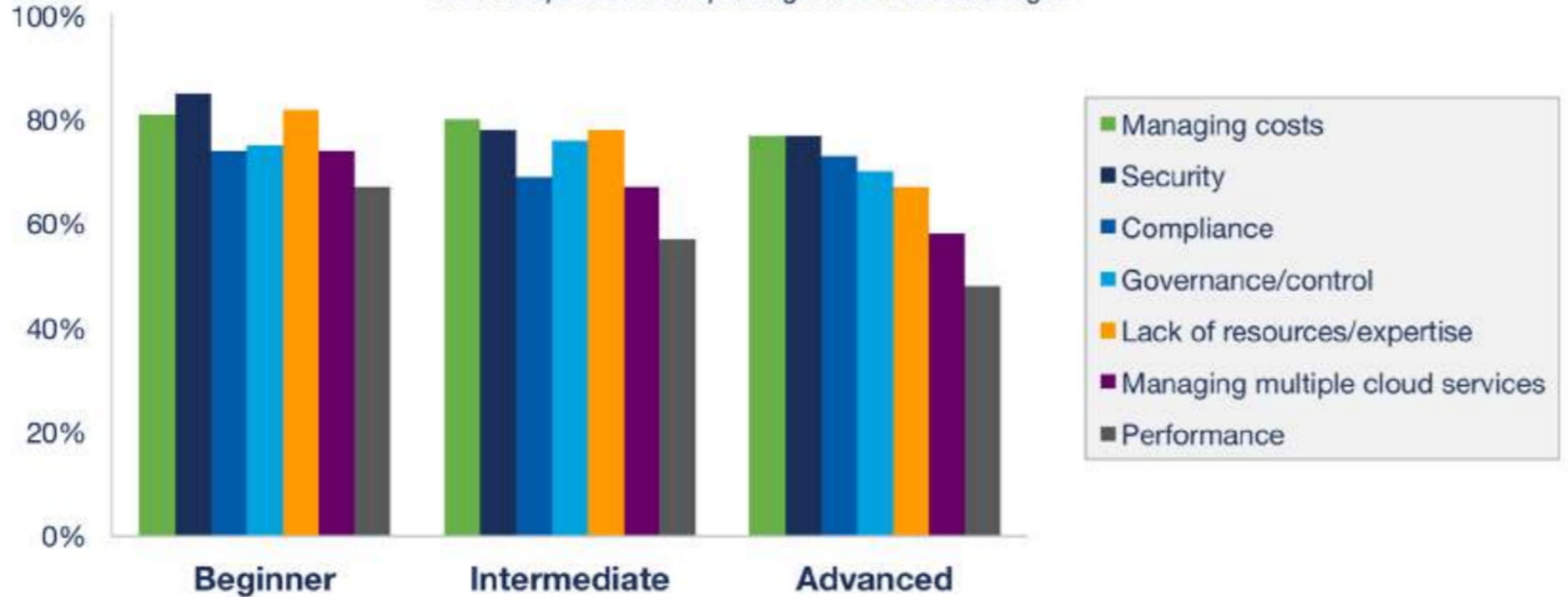


RightScale 2018 State of the Cloud Report™

DATA TO NAVIGATE YOUR MULTI-CLOUD STRATEGY

Challenges by Cloud Maturity

% of Respondents Reporting These As Challenges



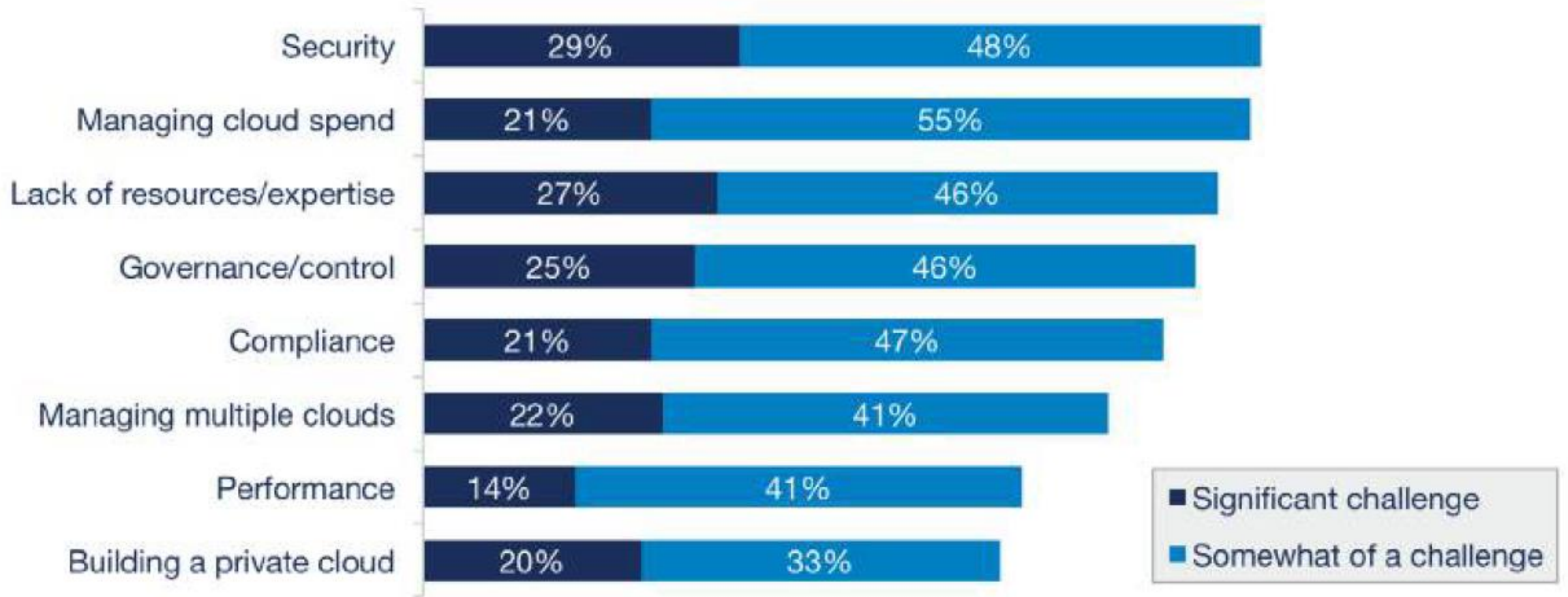
Source: RightScale 2018 State of the Cloud Report



Sikkerhet

Usikkerhet, personvern, GDPR, tilgang

Cloud Challenges



Source: RightScale 2018 State of the Cloud Report

IT'S NOT BORING
UP HERE - YOU GET TO
LOOK THROUGH EVERYONE'S
DATA!



“WASHINGTON — A special White House Task Force is recommending the creation of a federal data center which would eventually have a comprehensive file on every man, woman and child in the country. Now under study in inner administration circles, the still-secret report advocates the gradual transfer of all government records and statistics to magnetic computer tape, which would be turned over to a newly created agency that would function as a general data center. The computerized information would be available, at the touch of a button, to a wide range of government authorities. Estimated cost of the proposed center (which would have to be approved by Congress before becoming a reality) is \$2 million the first few years, around \$12 million when in full operation.

“A vast accumulation of government records already is on computer tape and could be turned over to the proposed general data center immediately. Listed among those available files are [records maintained by the Internal Revenue Service, Defense Department, Civil Service Commission, FBI, Social Security Administration, Census Bureau, Labor and Agricultural Departments, Office of Education].”

Allen-Scott Report

Data Center Plan Called Privacy Invasion

By ROBERT S. ALLEN
and PAUL SCOTT

WASHINGTON — A special White House task force is recommending the creation of a federal data center which eventually could have a comprehensive file on every man, woman and child in the country.

Now under study in inner administration circles, the still-secret report advocates the gradual transfer of all governmental records and statistics to magnetic computer tape, which would be turned over to a newly-created agency that would function as a general data center.

The computerized information would be available, at the push of a button, to a wide range of government authorities.

Estimated cost of the proposed center (which would have to be approved by Congress before becoming a reality) is \$2 million annually the first few years, around \$12 million when in full operation.

Authors of this plan are a six-member group appointed by President Johnson last December. Chairman is Carl Kaysen, Harvard economics professor assistant to McGeorge Bundy, former special White House assistant on foreign affairs. Other members are Charles Holt, University of Wisconsin; Richard Holton, University of California; Richard Ruggles, Yale; George Kozmetsky, Los Angeles; Russell Morrison, New York.

Although still under wraps, the task force's report already has triggered a congressional inquiry. Representative Cornelius Gallagher, D-N.J., head of a Government Operations subcommittee on invasion of priv-

ate Security, census data, medical, credit and criminal reports.

"Comprehensive information of this kind, centralized in one agency," says Gallagher, "could constitute a highly dangerous dossier bank. Such an agency would be a distinct departure from our American tradition."

Subcommittee investigators have ascertained that the task force's report states that a vast accumulation of government records already is on computer tape and could be turned over to the proposed general data center immediately. Listed as among these available files are:

Internal Revenue Service — 74.2 million personal and corporate tax returns.

Defense Department — 14 million "life histories" of civilians compiled in the course of security investigations.

Civil Service Commission — 8 million reports on individuals investigated for government jobs.

FBI — 175.3 million sets of fingerprints, comprehensive records on thousands of Communist Party members, sympathizers and other radical elements, Klansmen and other rightists.

The vast files of the Social Security Administration, Census Bureau, Labor and Agriculture Departments, Office of Education.

Cases in Point

Little-noticed testimony before Representative Gallagher's subcommittee last year revealed that, even without a general data center, government files with highly private information are far from inviolate.

For example: By law, tax re-

ports, the most intimate information, the investigators learned, are freely passed around among agencies. Graphically illustrative of this practice and its harsh consequences are the following two instances:

A teenager visiting Washington stayed with an uncle, at his mother's suggestion. During the night the boy was sexually assaulted by the uncle. Years later, as a Phi Beta Kappa graduate from a leading Eastern university, the boy applied for a job with the National Security Agency. During a required lie detector test he told about the assault. His frank admission cost him the desired job.

But that wasn't all. This affair, in which he was an innocent victim, hounded him again years later.

After marriage and success in business, he was offered an appointment in the Post Office Department. He accepted as an opportunity to be of public service. But the file compiled by the National Security Agency blackballed him. The appointment offer was withdrawn.

In the other case a college graduate sought a Marine commission, for which he was highly recommended. But in checking his personal record, four parking violations were found. The commission was denied. Later he applied for a Navy commission — but again to no avail because of the same four parking tickets. They were recorded in the Marine Corps file that was turned over to the Navy.

"This sort of thing could happen to anybody," points out Gallagher. "My state of New Jersey has computerized its





Kortreiste data og digital kriseberedskap

digi.no

IT-bransjens nettavis

– Hvis brorparten av samfunnets d
hvis de opphører, skriver HPEs nor

DEBATT | PUBLISERT: 5. SEP. 2019 - 07:35

f Facebook

- Stig Alstedt, Teknologidirektør H

Arendalsuka har blitt en arena for ut
områder en mulighet til å uttrykke d
oppmerksomhet i en nyhetshverdag
mange minuttene før jeg skjønnte at å
bærekraft. Temaet Klima/Miljø hadd
med ordet *bærekraft* i tittelen. Jeg la
måltider, da den fraktes fra Peru.



<http://bit.ly/kortreistedata>

nen raskt bryte fullstendig sammen

ANNONSE

Ledige IT-jobber

TU JOBB



Kommunal- og
Seniorrådgiver/fagdirektør
Oslo



Sparebanken Sogn og Fjordane
Utviklar til vårt datavarehus
Førde

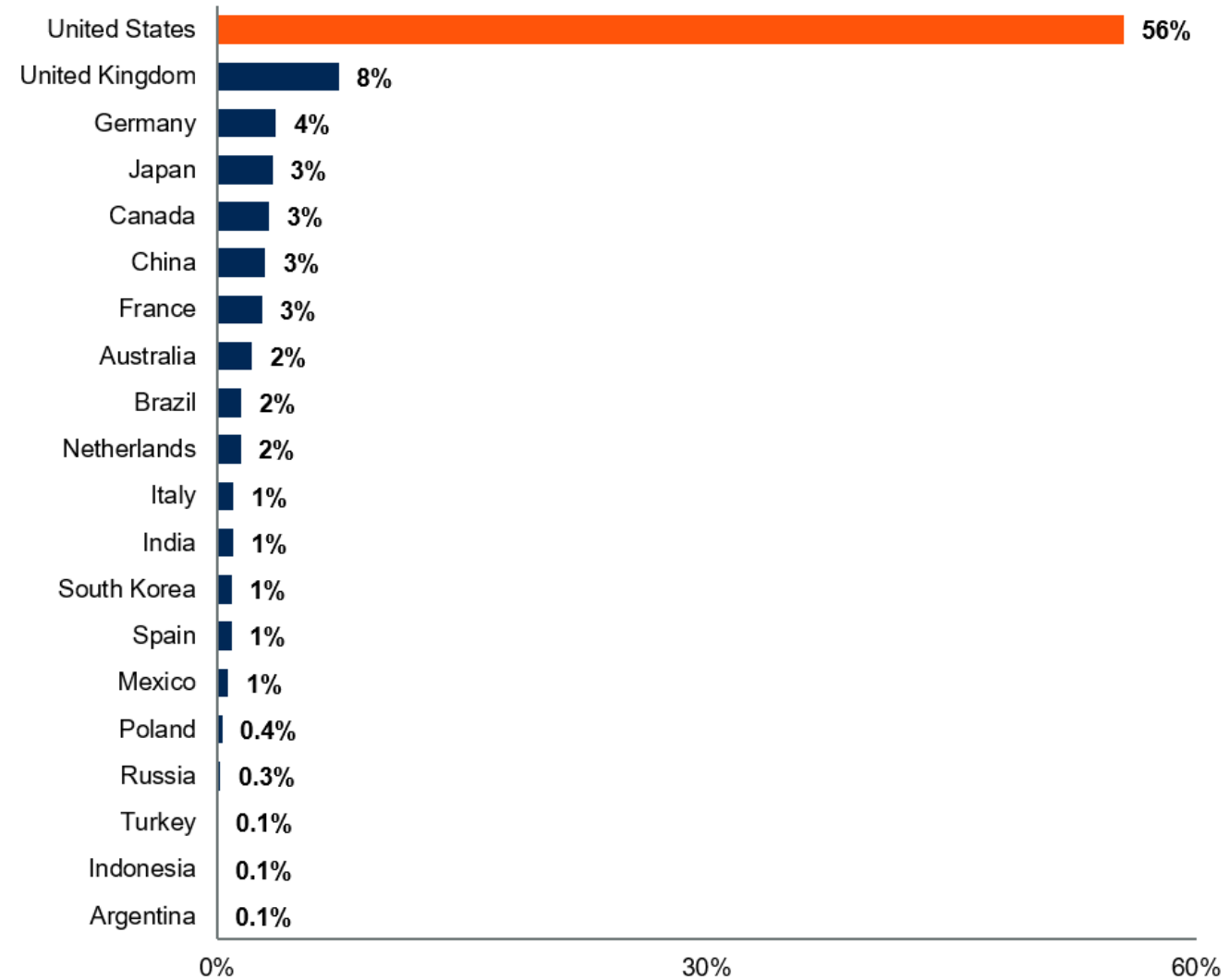


Tolldirektoratet
**Tjenesteansvarlig for
kjennerkeaienkiennina (ANP)**
Oslo

Epinova

IT Spending on Public Cloud Services as a Percentage of the Worldwide Total, 2018

Percentage of Respondents



Source: Gartner
ID: 405543



**Hvilke alternativer har du til (utenlandsk)
public cloud?**

<begin>

knivselgermodus

</begin>

Har jeg en sky i kjelleren?

Unike fordeler med en lokal, privat sky

– Kortreiste data

- Utstyr fysisk utplassert hos deg (eller lokal partner)
- Absolutt minimum *latency*
- Digital kriseberedskap: drift uavhengig av internett
- Full kontroll på fysisk tilgang: lås døra

– Norskbasert support fra navngitt enkeltperson (på Fornebu)

- Regelmessige planleggings- og statusmøter
- Alltid oppdatert utstyr: sømløs oppgradering av hw, sw, firmware inkludert

– Full forutsigbarhet

- Forhåndsavtalt (lav) månedskostnad
- Uoppfordret kapasitetsutvidelse *før* behov

– Ingen investering

- Forbruksbasert, etterskuddsvis fakturering

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There is no cloud

it's just someone else's computer

<end>

knivselgermodus

</end>

thestig@hpe.com