

3M Cloud Community

Advantages of Moving to the Cloud

Aug 25, 2021



Housekeeping

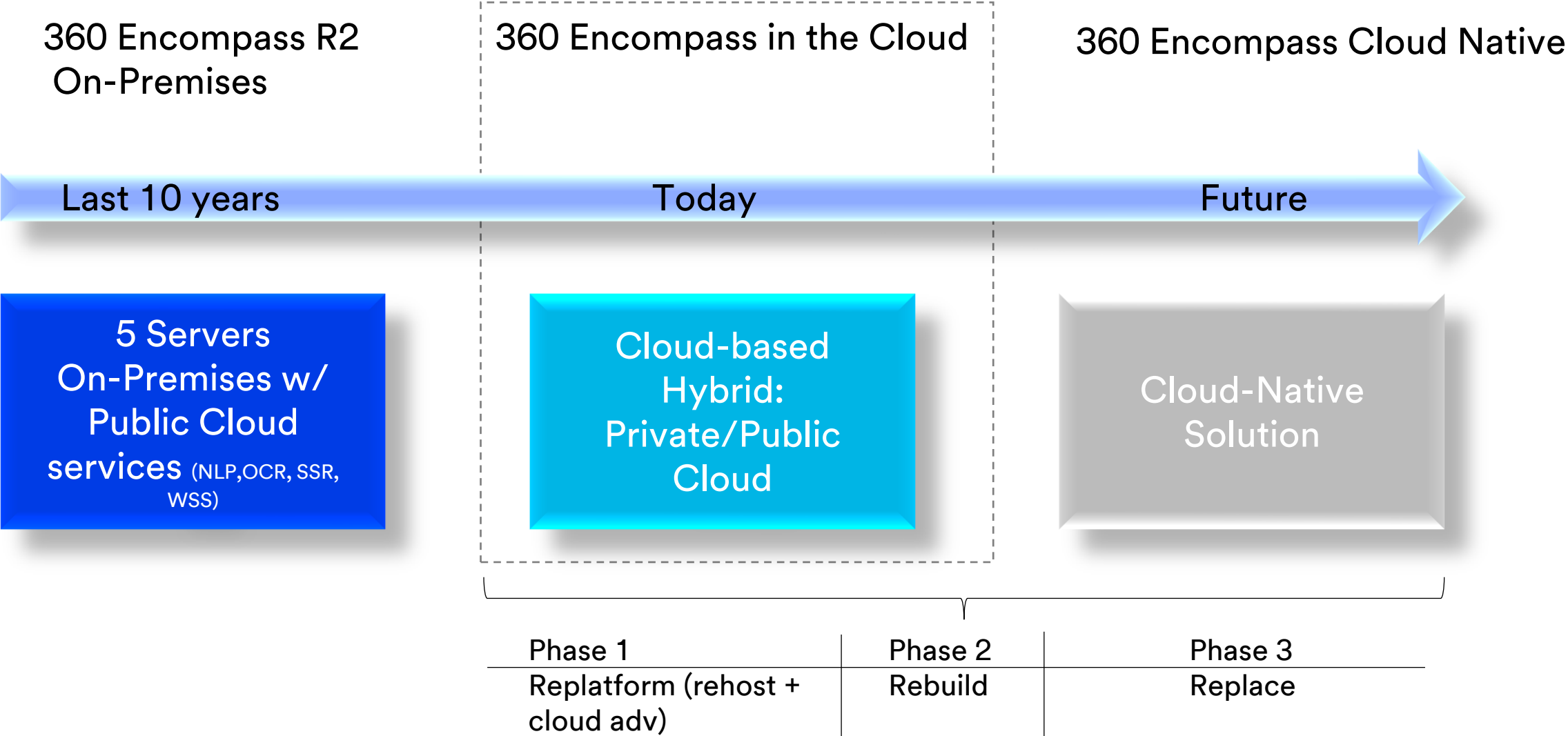
- Sound check
- Ask questions!
- Archive
- Survey

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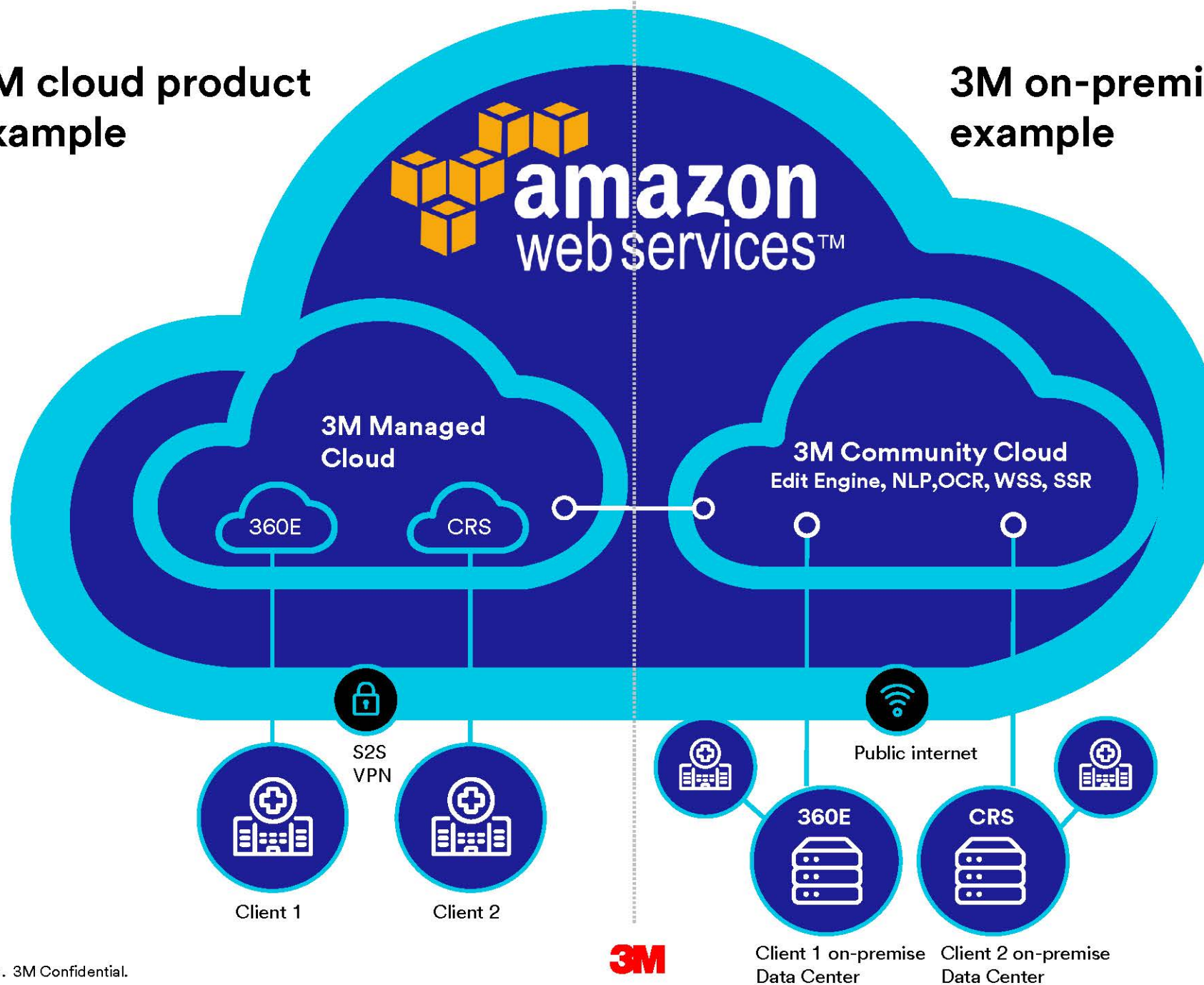
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Cloud Journey



3M cloud product example

3M on-premises product example



What products does 3M offer in the cloud?

3M offers the following products in the cloud:

3M™ 360 Encompass™ System in the Cloud

All the same features as 3M 360 Encompass on-premises, delivered through the 3M Cloud platform. This includes the full family of 3M 360 Encompass products.

3M™ Coding and Reimbursement System (CRS) in the Cloud

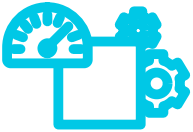
All the same features as 3M CRS on-premises, delivered from the 3M Cloud platform.

Key Consideration for Moving to the Cloud



Security

How do you keep data secure?



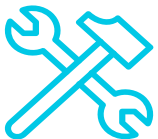
Performance

Will you see decreased application performance?



Agility

Will you be able to focus less on IT service delivery?



Reliability

Will it decrease downtime and overall level of effort?



Strategic alignment

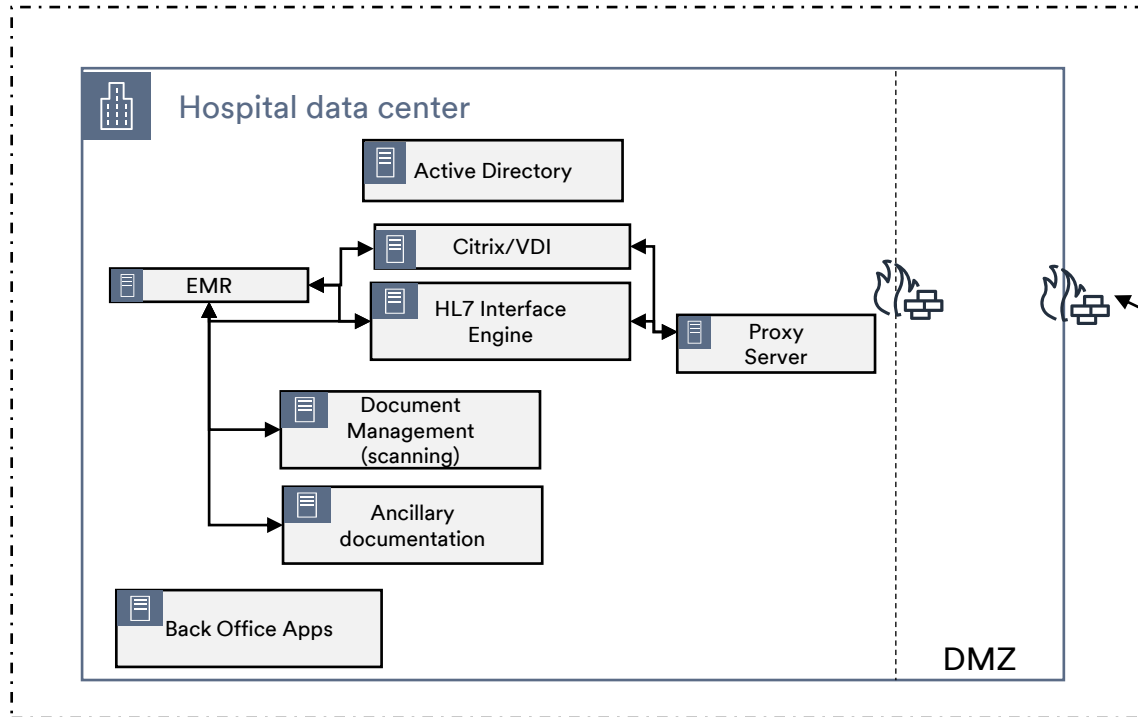
Does it align with your cloud strategy?



Total cost of ownership

Are there hidden or unexpected fees?

Security



3rd Party Cloud (AWS)

AWS is responsible for security of the cloud
Businesses are responsible for security in the cloud

- Is the application publicly accessible from the internet or is a dedicated connection required?
- Is SSO supported?
- Is TLS 1.2/https enforced?
- Are any resources shared between customers?
- What type of traffic is allowed/supported?
- Where are connections instantiated from?
- What additional security is provided?
 - Data Loss Prevention (DLP)
 - Penetration Testing
 - Threat detection/AV scanning
 - Log Scanning
 - Network filtering/ACL/NACL

Is all data encrypted in transit and at rest within your own data center?

Is all data encrypted prior to leaving your own data center?

How do you allow external connections to your network?

What type of connections do you allow to your network?

Performance Efficiency and Reliability

What type of performance testing is being done?

Test	Effect
Baseline	April 1, 2021
w/ VPN	+ 30 – 40 ms
w/extra security	Negligible (> 3 ms)
MS SQL vs RDS	Slight improvement
Right-sizing	Varies with load
3M App Updates	Varies with release

Is application performance being monitored?

Visit Open Times (sec): over 14 days

360E Cloud		On-Premises Comparisons			
Workflow	Client 1*	Comp 1	Comp2	Comp3	Comp4
Overall	4.34	3.87	4.5	4.02	7.19
Inpatient	6.60*	5.56	5.22	5.98	4.42
Outpatient	4.00*	2.23	2.94	2.55	2.31
CDI	7.35	14.129	13.49	15.91	13.30

*Client 1 is using webservice call, and forms authentication which are adding overhead.

Client 1 = 1,700 visits/day | Comp1 = 12,000 visits/day |
Comp2 = 700 visits/day | Comp3 = 1,500 visits/day | Comp4 = 1,200 visits/day

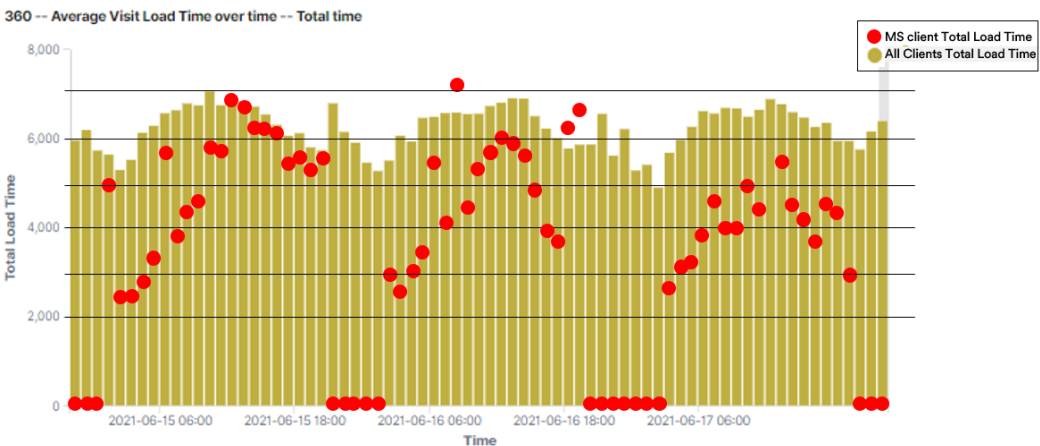
Are SLA's being measured?

Performance Data – Client Production Systems

	Managed Services Clients
System availability	99.97 % - 100%
DR events	0
RTO	1 hr
RPO	2 hrs

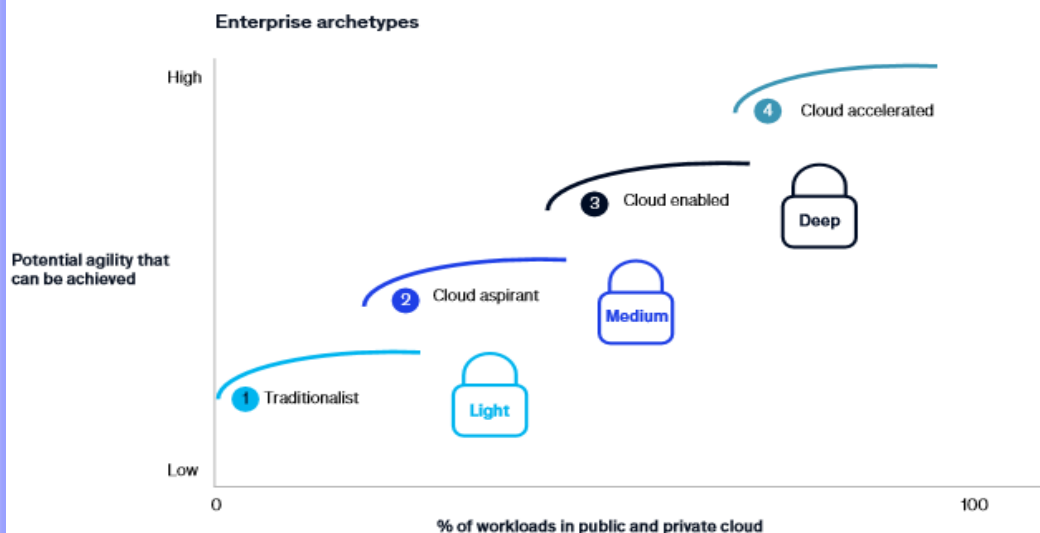
Is application performance being compared to other customers?

Performance Data – all Customer Comparison



Agility

Achieving high agility through tech modernization takes more than a one-size-fits-all approach and needs different unlocks.

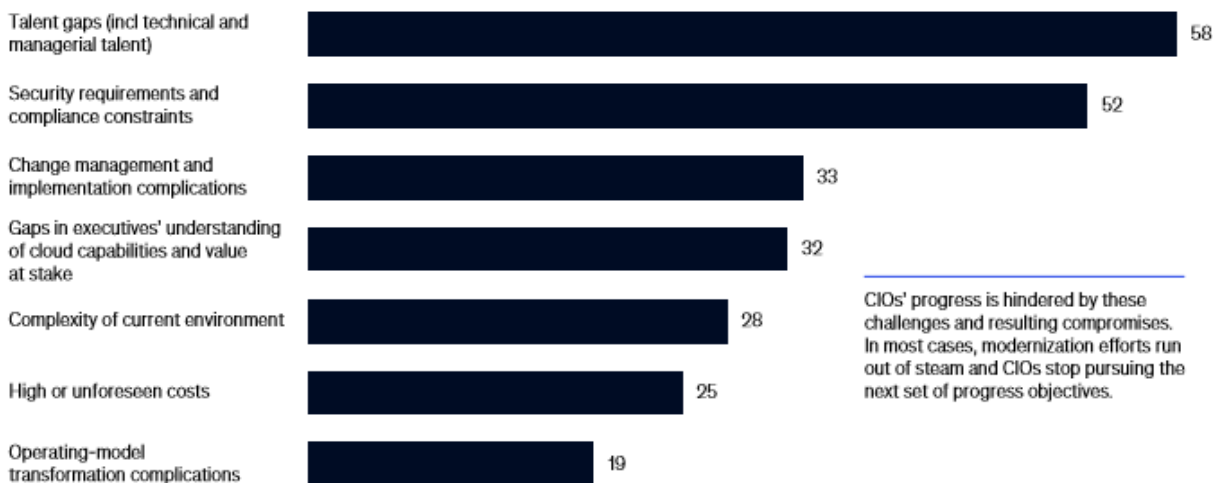


Source: McKinsey. "Unlocking business acceleration in a hybrid cloud world"

CIOs' inability to deliver on agility objectives is due to valid constraints and challenges.

Top challenges CIOs are facing in infrastructure modernization

CIOs who indicated this as a challenge, %



Source: McKinsey expert interviews (N=52)

Cloud-based solutions can:

- Allow more time for you IT team to focus more on business outcomes and innovation and less on traditional IT service delivery
- Reduce project cycle times and IT level of effort
- Provide more flexible options, additional beta opportunities for new products

Reliability

System Availability

MTTR (Meant time to Resolution)

MTTF (Meant time to Failure)

RTO (Recovery Time Objective)

RPO (Recovery Point Objective)

3M Cloud customers are experiencing:

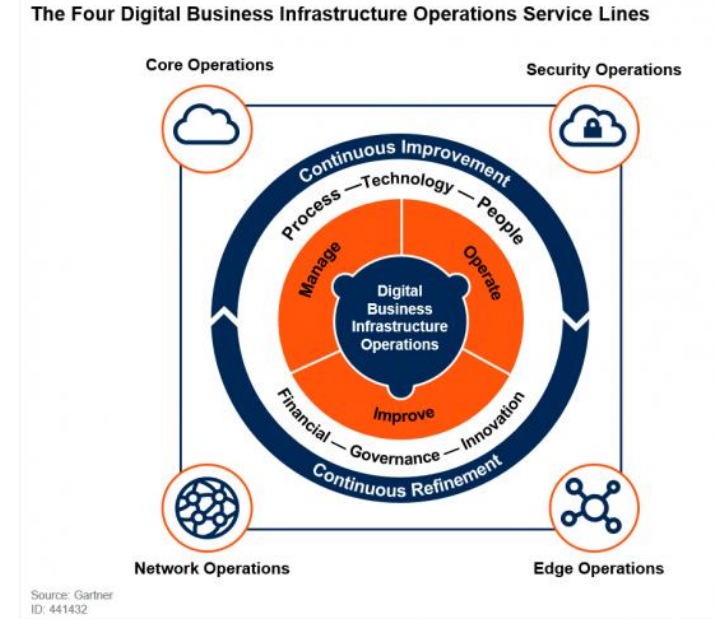
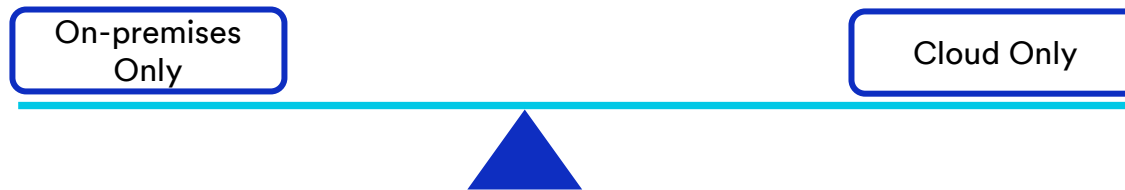
- 92% decrease in Sev 1 issue resolution time
- More than 3x improvement in MTTF
- More than 75% reduction in support tickets

Cloud-based solutions can:

- Offer increased system availability, limited interruptions
- Provide a more consistent experience to your end users
- Improve your update experience, all clients on same version of applications
- Increased monitoring capabilities
- Decreased support efforts

Strategic Alignment

3M market research notes 65% of US hospitals are using a cloud product or service



Cloud-based solutions can:

- Help you move away from IT service delivery and free up valuable resources to focus on key initiatives and drive business outcomes
- Improve your update experience, all clients on same version of applications
- Create a multi-cloud experience to support your choice of the best solutions to meet business objectives.

Total Cost of Ownership

- Hardware/Software purchase and maintenance costs
- FTEs required to implement, manage and support on-premises applications
- Software and Hardware life cycle management and patching

What is the true cost to upgrade to a newer OS version, new hardware, new storage?

- Don't forget about Shadow IT
- Inventory and license management
- 24x7x365 Operations Centers or on-call support
- Backups/Disaster Recovery
- Disruptive Severity 1 events
- Application performance monitoring
- Hiring people with skills/knowledge to support complex systems
- Keeping skills updated on new technologies
- Managing Security Events

Considerations in moving to 360E in the cloud

Security:

1. Can you encrypt your HL7 data on-premises before sending to the cloud?
2. Does your document management system have an HL7 document interface?
3. Are you using reference pointers for document retrieval?
4. Do you have good change control processes for Proxy Servers/Firewalls?
5. Is all the application data encrypted, including backups?
6. Can you support single sign-on with an Identity Provider or support ADFS authentication?

Location of your EMR, interface engine and user remote desktops:

1. Is your EMR on-premises, hosted by your EMR vendor, or hosted by a third party?
2. Is your interface engine on-premises, hosted by your Interface vendor, or hosted by a third party?
3. Are your user remote desktops located on-premises, or hosted by a third party?
4. Does your EMR offer a web version?

Vendor connection requirements:

1. Can you deploy vendor-owned VPN appliances in your DMZ?
2. Do you have enough bandwidth available on your existing circuits?

User Experience:

1. What is your user experience with Citrix/VDI today? Will this impact the user experience with cloud hosted solutions?
2. What needs to be installed on the user's remote desktop?

Join us for future Cloud Community discussions

Wednesday Oct. 6, 2021 @ 1:00pm ET

Webinar: Security in a multi-cloud world

<https://attendee.gotowebinar.com/register/8330451364039664144?source=social>

Wednesday, Nov. 17, 2021 @ 1:00pm ET

Webinar: Achieving operational excellence in the cloud

<https://attendee.gotowebinar.com/register/1613387495398003984?source=social>

Questions?

Don't forget!

Complete the survey

Register for the next webinars

October 6th

November 17th

Archive of recording will be sent

Thank you!