Indenfor telemedicin er der mange risikoområder, fra introduktionen af ny teknologi indenfor et områder der er notorisk konservativt, til installation hos en kundegruppe der er både konservativ og ofte udsat for både fysiske og mentale udfordringer som gigt, senilitet, stofmisbrug, m.m. Disse udfordringer vil dog eksistere uafhængigt af om der er tale om deployment i skyen eller på egne servere.

Ambrust et al omtaler forskellene mellem et konventionelt data center og skyen i en tabel. Ved at tage udgangspunkt i denne tabel og sammenholde med de behov der er i Telemedicin kan vi se om der er noget vundet ved at skifte til Skyen.

|  |  |  |  |
| --- | --- | --- | --- |
| Advantages | Public cloud | Conventionel Data Center | Tele-Medicine |
| Appearance of infinite computing resources on demand | Yes | No | Tele-medicine is a closed user group, and its growth is highly deterministic. For this reason the ability to rapidly scale the resources is not a high priority, as there would always be time to buy more physical or virtual servers when scaling up. |
| Elimination of an up-font commitment by Cloud users | Yes | No | The investment in Tele-medicine is huge, and the cost of the computing resources on the server end negligible in comparison. |
| Ability to pay for use of computing resources on a short-term basis as needed | Yes | No | The resources required will fluctuate during the day, but with the exception of an audit, the fluctuations are minor and predictable, and huge short-term fluctuations, like might be experienced on a public server when a new add-campaign runs, are not possible (except for errors). |
| Economies of scale due to very large data centers | Yes | Usually not |  |
| Higher utilization by multiplexing of workloads from different organizations | Yes | Depends on company size | This could be interesting, primarily due to the field of interest. Higher utilization means less resource waste and therefore a greener image. Due to the deterministic and relatively limited fluctuations of the load, it is however unlikely that this will be more than a PR gimmick. |
| Simplify operation and increase utilization via resource virtualization | Yes | No | Scaling must be possible, even if it does not need to be fast, and the design of the application must therefore be layered and follow the general recommendations for scalable software (see Design Guidelines for Application Performance). With that said the scaling may as well be done on an in-house data center or an external conventional data center. |

Baseret på ovenstående kan man konkludere at der ikke er tunge grunde til at vælge skyen, men omvendt, er der så nogle tunge grunde til ikke at vælge skyen, da ovenstående hovedsageligt konkluderer at der ikke er vundet noget, men er der tabt noget ved at vælge skyen?

Ud over at overveje om det er en god ide, Ambrust et al omtaler 10 mulige forhindringer ved at skifte til skyen. Disse vil vi også sammenholde med Telemedicin.

|  |  |
| --- | --- |
| Forhindring | Telemedicin |
| Availability/Business Continuity |  |
| Data Lock-In |  |
| Data confidentiality and Auditability |  |
| Data transfer bottlenecks |  |
| Performance Unpredictability |  |
| Scalable storage |  |
| Bugs in large distributed systems |  |
| Scaling quickly |  |
| Reputation fate sharing |  |
| Software licensing |  |