Chichester City Council

Upgrading the network infrastructure at the Council House

Reasons for proposal

The network infrastructure at the Council House currently consists of a mixture of wired connections and multiple WiFi nodes/networks serving the public and staff through various parts of the building.

The network as it stands has been upgraded piecemeal over recent years and has started experiencing problems with the increasing demands of online working internally and heavier demands from users of the rooms at the Council House. The latter also causes problems for Officers where network loading creates bottlenecks and slows access to cloud based services.

Further issues have been created by disparate WiFi networks with different network names and passwords meaning users have to register with several different networks to maintain continuous connection to data services as they move around the building.

The City Council is currently recruiting additional Officers and will start providing public access PCs in the community drop-in room which will put further demands on the IT infrastructure.

In addition, the City Council will shortly be starting a project to move away from the analogue phone system before the BT shutdown expected in the next 18-24 months. This will mean moving the phones to a Voice Over Internet Protocol (VOIP) setup, also known as Digital Voice, and will involve all telephone traffic being routed through the Council House network infrastructure. Therefore, the network will need to be robust enough to handle the additional traffic without lag or bottlenecking.

Proposal

The City Council's Internet Service Provider (ISP) was recently upgraded to the fastest service available prior to the availability of full fibre to the building (there is currently no date available for this) so the focus is on creating a much more robust and consistent network infrastructure, as well as single sign-on WiFi services for Officers and room hirers, that will be ready for connection to full fibre internet when it arrives.

The Council Services and Support Manager and Property Maintenance Manager have conducted an initial survey and the proposal is to implement an initial upgrade and in-fill post implementation as required to cover any dead-spots or unanticipated requirements from users.

Initial implementation:
- Replace core network cabinet hardware with upgraded, future proof units.
- Replace front office node hardware with upgraded future proof unit.
- Replace core network routers with upgraded, future proof units.
- Physically divide network distribution for internal and public/guest provision to prevent the risk of unauthorised cross connection to City Council internal systems and also allow Officers to connect to City Council central services (printers etc) regardless of where they are in the building.
- Deploy two distinct MESH networks to flood the Council House with separated single sign-on WiFi accessibility for staff and public throughout the building.

It is anticipated that the existing wiring infrastructure will be sufficient for the deployment of the upgraded network. However, if further cabling is required this can be undertaken in house at minimal cost.

Gareth Bowen – Council Services and Support Manager – July 2024

Recommendation
Officers recommend that the Property Sub-Committee authorise an amount of up to £3,000, to be paid for from the IT Improvement Budget, for the initial implementation of the upgrade and any identified post-implementation infill works. Officers to seek further authorisation from the Sub-Committee should the costs identified be higher than the initial sum.