

 <b>EXECUTIVE</b> 7 <sup>th</sup> February 2018		<b>Agenda Item No.</b> <b>13</b>
<b>Title</b>	2018/19 ICT Services Digital Work Programme	
<b>For further information about this report please contact</b>	Tass Smith (01926) 456693 <a href="mailto:Tass.smith@warwickdc.gov.uk">Tass.smith@warwickdc.gov.uk</a>	
<b>Wards of the District directly affected</b>	All	
<b>Is the report private and confidential and not for publication by virtue of a paragraph of schedule 12A of the Local Government Act 1972, following the Local Government (Access to Information) (Variation) Order 2006?</b>	No	
<b>Date and meeting when issue was last considered and relevant minute number</b>		
<b>Background Papers</b>	Executive Report 2 <sup>nd</sup> December 2015 – Digital Transformation of Council Services  Executive Report 8 <sup>th</sup> March 2017 – 2017/18 ICT Services Digital Work Programme	

<b>Contrary to the policy framework:</b>	No
<b>Contrary to the budgetary framework:</b>	No
<b>Key Decision?</b>	No
<b>Included within the Forward Plan? (If yes include reference number)</b>	Yes (ref 912)
<b>Equality Impact Assessment Undertaken</b>	No
Not applicable	

Officer/Councillor Approval		
Officer Approval	Date	Name
Chief Executive/Deputy Chief Executive	11.01.18	Andrew Jones
Head of Service	11.01.18	Andrew Jones
CMT	16.01.18	Andrew Jones
Section 151 Officer	11.01.18	Mike Snow
Monitoring Officer	11.01.18	Andrew Jones
Finance	11.01.18	Mike Snow
Portfolio Holder(s)	22.01.18	Cllr Mobbs
Consultation & Community Engagement		
Final Decision?		Yes
Suggested next steps (if not final decision please set out below)		

## 1. **Summary**

- 1.1 This report seeks approval from the Executive for the 2018/19 ICT Services Digital Work Programme and provides a progress update of both the current programme and some of the other Digital Strategic themes.

## 2. **Recommendations**

- 2.1 That Executive notes the ongoing progress made in improving the digital security offering and also the return on investment made in the provision of high speed broadband services within Warwick District, as set out in Appendix 1.
- 2.2 That Executive notes the progress made in 2017/18 with the ICT Services Digital Work Programme as set out in the 8<sup>th</sup> March 2017 Executive Report, including a number of learning points.
- 2.3 That Executive agrees the 2018/19 ICT Services Digital Work Programme at Appendix 2 which is based on the Business Cases at [Appendix 3](#) (electronic only).
- 2.4 That, subject to the approval of recommendation 2.3 above, the Executive notes that the 2018/19 Budget Report has made available up to £33,000 for the Programme's delivery.
- 2.5 That, subject to the approval of recommendation 2.4 above, the Executive notes that the release of funds for this Programme will be subject to a detailed financial review of each Business Case and will require sign off by the s151 Officer.

## 3. **Reasons for the Recommendation**

### 3.1 Recommendation 2.1

- 3.1.1 The ICT and Digital Strategy 2015-19 contains five strategic themes.

[Appendix 1](#) contains a detailed explanation of the progress made towards the Digital Warwick theme during 2017/18 and the ongoing commitment for 2018/19. In addition, it also provides a comprehensive update of the latest Digital security improvements.

The key Digital Warwick highlights are:

- In Contract 1 Warwick District Council contributed **£132,000** to the project which attracted a further **£858,000** of investment. In doing so an additional **5,183** premises within the district are now capable of receiving SFBB.
- Contract 2, which is still currently in progress, required no investment from Warwick District Council, but it is anticipated that on completion a further **1,865** premises in the district will benefit from the availability of SFBB.
- Contract 3 is very much in its infancy and, by its very nature of being the last contract, is dealing with the most difficult and expensive premises to connect to SFBB. To further assist the roll-out Warwick District has committed another **£130,000** to the project.

The key Digital Security highlights are:

- During the last twelve months, ICT Services has undertaken a raft of initiatives to improve the security of the data that the Council holds. This work is ongoing and includes:
  - Strong patch management
  - Improved Antivirus and anti-spam filtering
  - Registering for the UK Public Sector DNS service
  - Website monitoring via the National Cyber Security Centre's Web Check service
  - Improved email security; anti-spoofing, anti-tampering and encryption in transit.

3.1.2 In addition, a report will be brought before the Executive during 2018 to provide an update on the Digital Member theme

### 3.2 Recommendation 2.2

3.2.1 A number of projects have been completed during 2017/18. These projects either originated from the 2016/17 or 2017/18 Digital Work Programmes or were subsequently identified as a high priority:

Completed Projects	Benefits realised
Leisure centre contract management system	Ease of carrying out inspections to inform the Leisure centre contract manager of potential issues.
Telephone card payment solution	Staff can now take customer payments during telephone conversations using Capita's fully PCI DSS Compliant module
High rise block inspections mobile form	Following the Grenfell Tower fire, a decision was taken to carry out daily fire inspections of the high rise blocks. The mobile form provides a robust and efficient solution, allowing photographs and notes to be made on site, to support subsequent repair requests
Frontline self-serve kiosk pilot	A self-serve kiosk-style solution, installed at Riverside House, allowing customers to self-serve a range of online services
Community Infrastructure Levy	Following significant support from ICT Services, the Development Services team are now in a position to collect this valuable funding stream
Online forms either created or amended to replace previously published generic email addresses. Specifically: <ul style="list-style-type: none"> <li>• Updated 3 change of address forms</li> <li>• Updated council tax direct debit form</li> <li>• Updated several council tax discount forms</li> <li>• Updated council tax general enquiry form</li> <li>• New report noise nuisance</li> <li>• New report smoke, dust</li> </ul>	<p>Generic email addresses have either been completely removed from the website or now appear less frequently.</p> <p>Customers can now self-serve using structured forms to capture the relevant information</p> <p>Staff can be confident that the correct information has been provided first time which allows requests to be completed more efficiently than before.</p>

<ul style="list-style-type: none"> <li>and smells</li> <li>• New waste collection enquiry</li> <li>• New request assisted collection</li> <li>• New street cleaning form</li> <li>• New report fly tipping</li> <li>• New car parks season ticket form</li> </ul>	
Replacement Housing Repairs Contractor interface	The new interface replaces the current emails sent to contractors which improves data security and reduces manual processes for back office staff and Housing Contractors
Intranet access for Members	Secure information sharing and collaboration
Bespoke developer training	ICT Application Support team members participated in a comprehensive bespoke training package to ensure they have the requisite knowledge to resource future Digital Work Programmes

### 3.2

.2 A number of projects, detailed below, are still in progress from the 2017/18 Digital Work Programme:

Ongoing Projects	Current project status
Neighbourhood Services Data Capture	Contract to be awarded in February 2018. The successful contractor will complete the data capture exercise by end June 2018
Self-serve Council Tax Forms (OPENChannel)	Solution installed and currently finalising system testing phase with a view to going live with the first form in January 2018.
Online card payment refunds (Capita)	Due to be completed by end March 2018. Supplier delays have severely hampered progress
Replacement Crematorium System	Project Manager unable to be released from normal operational duties. Project anticipated to start by March 2018
Improved planning committee speaker requests	This project is being run using the Agile development methodology: capturing requirements via user stories which are then developed, tested and signed-off within 4-weekly 'sprints'. The first sprint has been successfully completed. Subsequent sprints are planned between January – March 2018
PCI DSS Compliance centralised logging system	The compliance programme is still being worked on (though no ICT development is now required)
Online forms to replace generic service email addresses	Building on the success of the web forms already published (see 3.2.1 above), further projects have been identified for 2018/19 to explore direct integration with back office systems, removing unnecessary data inputting
Barcode generation system for miscellaneous payments	The in-house development has been largely completed. We are now working on the back office system integration and await third-party supplier quotes

3.2.3 A number of projects, detailed below, have been withdrawn from the 2017/18 Digital Work Programme:

Projects withdrawn from the 2017/18 programme	Reasons for project withdrawal
Revenues visiting officer mobilisation	This was the first Agile project and rapid progress was initially made. However, following an internal staffing restructure, the visiting officers' team responsibilities have changed and the decision taken to put this project on hold as it was felt that a different approach may be more effective.
Self-serve car park season ticket requests	Without the ability to integrate to the back office car park system, the proposed solution would have produced minimal overall improvements. This requirement would instead be built into any future car park software purchase.
Self-serve pest treatment requests and officer mobilisation	Soft market testing is currently underway to investigate whether a new software solution would provide this as standard functionality
Improved building control register & officer mobilisation	
Taxi inspections officer mobilisation	
Mobile payments SmartPay360 (Capita)	Capita failed to provide a marketable solution and have refunded the costs in full

3.2.4 The main learning points from the 2017/18 Digital Work Programme are:

- With limited staff resources, it has continued to be challenging for Service Areas to maintain their business as usual service while also releasing the most appropriate staff to design and test their transformational solutions.
- An ongoing complication, identified in the 8th March 2017 report, has been aligning resources between the ICT and Service Area teams for the duration of each project.
- The ICT Application Support Team (who resource this programme) spend a high proportion of their time supporting the current 100 or so software applications, leaving limited availability for new projects. When implementing transformational projects, Service Areas have had to make some significant back office process changes to realise the full benefits.
- Project timelines can be adversely affected by third-party software supplier availability and lead times.
- That the project teams who experimented with Agile methods found the experience highly rewarding and were better able to draw out functional requirements, build, test and release valuable working software within shorter timescales.

3.2.5 In consequence of the above, the following steps will be taken:

- Prior to starting each new project, the Application Support Team will work closely with the proposed project team members to explain the

level of commitment required and to better understand where potential resource alignment issues may arise.

- Various improvements are being trialled to increase resource availability for new projects, such as routing all support calls via the ICT Service Desk team to reduce Application Support Team interruptions
- By using the Agile Development Methodology, new solutions will be developed, tested and implemented, in manageable increments, in tandem with relevant back office process adjustments
- Where third-party software suppliers are an integral element of a project, their availability and lead times will be sought earlier and factored in to the project timelines, and adjusted as required.

### 3.3 Recommendation 2.3

#### 3.3.1 Appendix 2 contains the 2018/19 Digital Transformation Work Programme which reflects, in the main, the Business Cases at Appendix 3.

The remaining projects have either been carried forward from the 2017/18 Work Programme as a result of supplier delays, or already form part of the Digital Transformation Business Case that was agreed by Executive on the 2nd December 2015.

#### 3.3.2 The Work Programme is based on project urgency and importance, internal staff resource / third-party availability and any anticipated procurement requirements. In addition, legislative changes may impact on the team's ability to fulfil the Work Programme. It is likely that the General Data Protection Act, which comes into effect in May 2018, will impact heavily on ICT Services as back office systems will need new modules installing to handle the revised data requirements.

#### 3.3.3 The following table summarises each Business Case and its anticipated customer and business benefits. Where a project has a limited scope, this is noted below. Please refer to the individual Business Cases listed in Appendix 3 for the full list of identified benefits

<b>Business Cases 2018/19</b>	<b>Customer benefits</b>	<b>Business benefits</b>
<b>Integrating Jadu web forms with maps and automated progress updates</b>	Provide assurance for customers with automated progress updates, preventing the need for follow up calls to check case progress	Drive usage from phone to web – a cheaper channel Save staff time in the back office handling customers chasing up enquiries
<b>Fly-tip Reporting</b>	Increased customer satisfaction through regular status updates	Drive usage from phone to web – a cheaper channel Save staff time in the back office handling customers chasing up enquiries
<b>Mobile Food Safety Inspection Enhancements</b>	Increased customer satisfaction as an emailed copy of the	Removes time spent manually rekeying visit information and

	inspection and relevant documents will be provided while still on site	uploading photographic evidence Reduction in manual administration tasks
<b>Miscellaneous Payments Management System</b>	None – internal project only	Ease of setting up new payments and managing existing ones
<b>Litter Bin issue reporting</b>	Ease of reporting litter bin issues Ease of accessing status of litter bin report requests in progress	Informed asset management decision can be made about the litter bin stock
<b>Waste Contractor mobilisation</b>	Photographic evidence of request fulfilment will enhance the information available to customers	Efficient request fulfilment Reduction in manual administration tasks for staff and contractors
<b>Building Control Completion Certificate Self-serve Requests</b>	Encourages self-serve approach Enables online payment for requested certificates	Reduction in phone calls received Reduction in manual processing and paper handling
<b>Corporate Purchasing Card System</b>	None – internal project only	Ability to create reports of payment card usage and for external publication Reduction in manual processing and paper handling
<b>Housing Tenants - Self-serve Repair Requests</b>  <b>Limited project scope:</b> ICT involvement restricted to assisting with soft market testing of potential third party products and trialling a possible Proof of Concept	Ease of reporting repairs Ease of accessing status of repair requests in progress	Reduction in phone calls received Potential to reduce back office data handling
<b>Development Control - migrating critical data from spreadsheets</b>	None – internal project only	Reduction in data handling and duplication of effort Increased ability to report on and perform data modelling
<b>Corporate Field Payment Solution</b>	Ease of making payment Faster delivery of service following payment	Reduction in manual handling of customer cheques / cash payments Increased safety for

		field workers
<b>Lone Worker Monitoring System</b>  <b>Limited project scope:</b> ICT involvement restricted to assisting with soft market testing of potential third party products.	None – internal project only	Subject to procuring suitable software this project would improve the lone worker safety (staff and Members)

### 3.4 Recommendations 2.4 & 2.5

- 3.4.1 The Business Cases at Appendix 3 include anticipated Capital and Revenue costs based on the information that we currently hold about each project. To protect the funds made available for this Work Programme, each Business Case will be subject to a details financial review to ensure all costs have been identified, before agreement to release the funds is made by the s151 Officer.

## 4. Policy Framework

### 4.1 Fit for the Future (FFF)

The Council's FFF Strategy is designed to deliver the Vision for the District of making it a Great Place to Live, Work and Visit. To that end amongst other things the FFF Strategy contains several Key projects.

The FFF Strategy has 3 strands – People, Services and Money and each has an external and internal element to it. The table below illustrates the impact of this proposal if any in relation to the Council's FFF Strategy.

FFF Strands		
People	Services	Money
<b>External</b>		
<b>Health, Homes, Communities</b>	<b>Green, Clean, Safe</b>	<b>Infrastructure, Enterprise, Employment</b>
<u>Intended outcomes:</u> Improved health for all Housing needs for all met Impressive cultural and sports activities Cohesive and active communities	<u>Intended outcomes:</u> Area has well looked after public spaces All communities have access to decent open space Improved air quality Low levels of crime and ASB	<u>Intended outcomes:</u> Dynamic and diverse local economy Vibrant town centres Improved performance/ productivity of local economy Increased employment and income levels
<b>Impacts of Proposal</b>		
Many of these projects will provide new customer self-serve options and should improve customer satisfaction through automated case status updates	The Neighbourhood Services Data Capture project and the integrated web forms (for fly-tip and litter bin reporting) will directly contribute towards maintaining our public spaces.	The continued investment in the BDUK programme should improve access to superfast broadband which will directly benefit those communities



<b>Internal</b>		
<b>Effective Staff</b>	<b>Maintain or Improve Services</b>	<b>Firm Financial Footing over the Longer Term</b>
<u>Intended outcomes:</u> All staff are properly trained All staff have the appropriate tools All staff are engaged, empowered and supported The right people are in the right job with the right skills and right behaviours	<u>Intended outcomes:</u> Focusing on our customers' needs Continuously improve our processes Increase the digital provision of services	<u>Intended outcomes:</u> Better return/use of our assets Full Cost accounting Continued cost management Maximise income earning opportunities Seek best value for money
<b>Impacts of Proposal</b>		
The provision of mobile technologies (for field payments and food safety inspections) and the feasibility study into a new lone worker monitoring system will ensure staff have the most appropriate tools	Several projects focus on providing self-serve capabilities and automated status updates. Other projects streamline our back office processing and improve our reporting capabilities	These projects will improve staff productivity, therefore reducing transaction costs, by automating processes, reducing avoidable demand and by targeting resources towards the most complex tasks

#### 4.2 **Supporting Strategies**

Each strand of the FFF Strategy has several supporting strategies and the relevant one for this proposal is the ICT and Digital Strategy 2015-19. This resource strategy clearly sets out how the Council will ensure that its ICT infrastructure will be in place to support the delivery of the council's purpose.

#### 4.3 **Changes to Existing Policies**

Not applicable

#### 4.4 **Impact Assessments**

Not applicable

### 5. **Budgetary Framework**

- 5.1 The Executive should note that the 2017/18 Budget Report included a budget of £200,000 for delivery of the 2017/18 Digital Transformation Work Programme.

The following table provides an update on how this budget has been spent so far:

<b>Business Case</b>	<b>Estimated up-front cost £</b>	<b>Revised project costs £</b>	<b>Notes</b>
Neighbourhood Services data capture	<b>50,000</b>	<b>45,241</b>	Includes Public landownership

exercise			dataset. There may be some additional costs once the data capture actually starts
Self-serve Council Tax forms (OPENChannel)	<b>48,380</b>	<b>48,380</b>	
Revenues visiting officer mobilisation	<b>600</b>	<b>0</b>	Project withdrawn
Replacement crematorium system	<b>49,400</b>	<b>0</b>	Project has not yet started
PCI DSS Compliance centralised logging system	<b>300</b>	<b>0</b>	Project no longer requires any ICT development
Leisure Centre contract management system	<b>300</b>	<b>300</b>	
Self-serve car park season ticket requests	<b>0</b>	<b>0</b>	Project withdrawn
Self-serve pest treatment requests	<b>600</b>	<b>0</b>	Project withdrawn
Improved planning committee speaker requests	<b>0</b>	<b>0</b>	Internal development only
Barcode generation for miscellaneous payments	<b>2,000</b>	<b>4975</b>	Two of the third-party supplier quotes were higher than expected. One quote still outstanding but estimate included in this total figure
Improved building control register and officer mobilisation	<b>3,900</b>	<b>0</b>	Project withdrawn
<b>TOTAL</b>	<b>155,480</b>	<b>98,896</b>	

- 5.2 The Executive should note that the 2018/19 Budget Report includes a budget of £33,000 for delivery of the 2018/19 Digital Transformation Work Programme.

The estimated upfront costs of the projects are shown in [Appendix 4](#). These costs will be managed within the £33,000 budget, with the release of funds agreed by the s151 Officer.

## 6. Risks

The major risk to the programme continues to be the ability to resource projects in both ICT and service areas.

In respect of the individual projects, the table below sets out the main risks identified for each of the Business Cases at Appendix 3. Please refer to the individual Business Cases for the full list of identified risks and their likelihood, impact and mitigation.

<b>Business Cases 2018/19</b>	<b>Please refer to the Business Cases at Appendix 3 for the Likelihood, Impact and Mitigation for each Identified Risk</b>
<b>Integrating Jadu web forms with maps and automated progress updates</b>	Complex integration between various systems falls short of expectations
<b>Fly-tip Reporting</b>	Complex integration between various systems falls short of expectations
<b>Mobile Food Safety Inspection Enhancements</b>	Solutions fail or officers lose confidence in its capabilities
<b>Miscellaneous Payments Management System</b>	That the time spent developing this solution would be better spent on other projects
<b>Litter Bin issue reporting</b>	Data is inaccurate or fails to be adequately maintained
<b>Waste Contractor mobilisation</b>	Contractual staff do not feel adequately supported and fail to use the new system
<b>Building Control Completion Certificate Self-serve Requests</b>	Loss of ICT systems once new self-serve solution is embedded
<b>Corporate Purchasing Card System</b>	That the new solution does not improve the current paper-based process
<b>Housing Tenants - Self-serve Repair Requests</b>  <b>Limited project scope:</b> ICT involvement restricted to assisting with soft market testing of potential third party products and trialling a possible Proof of Concept	That the software solution is easy to use and manage, given that it has to cater for numerous, potentially complex, repair scenarios.
<b>Development Control - migrating critical data from spreadsheets</b>	Allocation of sufficient staff resources Data migration costs
<b>Corporate Field Payment Solution</b>	Potential for card fraud (through data being on devices which are lost) Ensuring that payment can be taken in locations without mobile signal
<b>Lone Worker Monitoring System</b>  <b>Limited project scope:</b> ICT involvement restricted to assisting with soft market testing of potential third party products.	This project is very much at the feasibility stage so the biggest risk is that suitable software can be found at an affordable cost. Prevention of violence and aggression towards staff

Projects carried forward from previous programmes	Identified Risks
Replacement crematorium system	The individual project risks are detailed in the <a href="#">2017/18 ICT Services Digital Work Programme report</a> , section 6
PCI DSS Compliance centralised logging system	
Online forms to replace generic service email addresses	By continuing to publish generic email addresses, service requests have to be manually entered into back office ICT systems

### **Alternative Option(s) considered**

The option not to continue down the 'digital route' was discussed in the 2nd December 2015 Executive Report and it was accepted that while there will always be situations when it is entirely appropriate for a customer to transact with a member of staff, many of the Council's services do not need to be delivered in this way. Continuing with the proposed Digital Transformation Programme advocated in this report will be financially efficient and will provide an improved customer experience.

## Appendix 1 – Digital Warwick and Digital Security updates

The Council's Digital Strategy identified five strategic themes:

- Digital Customer
- Digital Workforce
- Digital Warwick
- Digital Collaboration
- Digital Members

### 1. Digital Warwick update

The Digital Warwick theme recognises that a strong digital infrastructure is essential for Warwick DC's growing economy to prosper. The benefits of the district's environment, high standards of living and strategic transport connections must be matched by powerful digital advantages to maintain its position as a great place to live, work and visit.

Locally the vision of bringing an improved broadband infrastructure to the district, including superfast broadband, is being delivered by the Coventry, Solihull and Warwickshire Superfast Broadband Partnership (CSWSBP).

At the start of the project (2012) the CSWSBP identified that Warwick District had a relatively high commercial roll-out of superfast broadband (SFBB) of **87%**. However, other districts in the County, such as Stratford District, had a much lower coverage of SFBB due to their rural nature.

To increase the coverage of SFBB across the Warwickshire region the CSWSBP, utilising partnership, central government (BDUK) and private sector funding, has let a total of three SFBB contracts.

In Contract 1 Warwick District Council contributed **£132,000** to the project which attracted a further **£858,000** of investment. In doing so an additional **5,183** premises within the district are now capable of receiving SFBB.

Contract 2, which is still currently in progress, required no investment from Warwick District Council, but it is anticipated that on completion a further **1,865** premises in the district will benefit from the availability of SFBB.

Contract 3 is very much in its infancy and, by its very nature of being the last contract, is dealing with the most difficult and expensive premises to connect to SFBB. To further assist the roll-out Warwick District has committed another **£130,000** to the project.

It is difficult to give final predictions on what the end state of the project will be as this depends on two unknowns. Firstly, until the survey work is completed for Contract 3 and matched to the available budget, the extent of the roll out cannot be determined. Secondly, for state aid reasons, the CSWSBP cannot fund any connections in an area where a commercial supplier has indicated that they will go. However, using a best case scenario, of the **72,076** premises identified in Warwick district, over **70,000** could have access to SFBB by project completion.

In December 2017 the Deputy Chief Executive responsible for the project and the ICT Services manager met with the CSWSBP project lead to seek clarification on those properties that are unlikely to have access to SFBB at the

projects conclusion. Once this information has been collated, an options review will be undertaken with CSWSBP.

## 2. Digital Security update

### Digital Services and Cyber-security update

The citizens of Warwick District expect the Council to provide convenient digital services that equals the experience they receive when online shopping or banking. However, because these digital services provide access to things of very real value, they have become a prime target for cyber-attack.

When a digital service is successfully compromised, the fallout can be damaging, expensive and embarrassing for the organisation involved and potentially catastrophic for the individuals whose data has been lost. Therefore the Council continues to take a measured approach to security that looks at likely risks in context and invests as appropriate.

The following lists some of the initiatives that the Council has undertaken in the last twelve months.

#### Internal Infrastructure

##### Patching

The Council has always had a strong patch management regime which has been evidenced through successive audits and the Council's annual PSN Health Check. However this year there has been the following improvements:

- Reduction in the time from patch release to deployment
- Increased compliance validation
- Reduced tolerance for non-compliant machines accessing the network.

##### Antivirus

The Council still continues to use two AV solutions to protect its data. However, there is now significant evidence that signature based solutions are struggling to keep pace with the evolving threat. In response, the Council has augmented its existing AV solutions with next-generation signatureless technologies which assist in protecting the Council from unknown threats and zero-day vulnerabilities

##### DMARC, DKIM and SPF

To further reduce the threat posed by SPAM and spoofed email, the Council is in the process of implementing DMARC (Domain-based Message Authentication, Reporting & Conformance), DKIM (DomainKeys Identified Mail) and SPF (Sender Policy Framework).

Although the email authentication technologies SPF and DKIM were developed over a decade ago to provide greater assurance on the identity of the sender of a message, the problem of fraudulent and deceptive emails has not abated. However, with the introduction of DMARC, this ensures that legitimate email is properly authenticated against established DKIM and SPF standards.

In fact, DMARC is the first and only widely deployed technology that can make the “header from” address (that users see in their email clients) trustworthy.

## UK public sector DNS

The Council is currently in the process of registering to use the UK public sector DNS service.

The UK public sector DNS protects users and their information by using DNS filtering to:

- prevent users from accessing known malicious sites
- make phishing attacks less effective – if a user clicks a malicious link in an unsolicited email, the DNS prevents access to a pre-identified malicious site
- prevent communication between cyber criminals and their malware - they block or redirect DNS lookups to known malware command and control servers

## Network Infrastructure

2017 saw a significant upgrade to the Council’s network infrastructure, with the majority of the components replaced. Most importantly, the Council replaced its core firewalls with a latest generation solution.

## Digital Services

### DMARC, DKIM and SPF

In the same way that the Council will use the above technologies to assist in blocking spoof mail entering the Council, the Council will also appropriately tag its own mail. This means that if citizens use email services that support DMARC, DKIM and SPF, such as ‘gmail’, then those citizens can be confident that if they receive an email from a ‘warwickdc.gov.uk’ then it is genuine.

### Generic email addresses

Like many organisations, Warwick DC encouraged citizens to contact the Council using a generic email address. Although the Council did not encourage citizens to include personal or sensitive information in these emails, the content of the email was outside the control of the Council. To promote digital leadership through best practice, and to protect its citizens, the Council is in the process of removing its generic email addresses and replacing them with web forms, accessible through the web site. This provides two major benefits for the citizen. Firstly, the web form is secure and ensures any information that is entered is appropriately encrypted in transit. Secondly, the use of a web form can ensure that the correct service information is captured at the point of entry and this improves service resolution.

### Transport Layer Security (TLS)

Although the Council promotes initial contact through the use of web forms, see above, subsequent interactions are likely to take place via conventional email. Once again Warwick DC wishes to ensure that when communicating with the Council, citizen data is protected in the most appropriate manner. To do this the

Council is implementing TLS. Transport Layer Security (TLS) is an encryption protocol used to protect data in transit between computers.

The use of TLS is being mandated by the Government's National Cyber Security Centre for inter government department communication. This will ensure that any citizen data that is shared between other government agencies and Warwick DC is also protected.

### **Web Check**

The Council's web site is the first point of contact for a citizen interacting with a Council digital service and therefore it is essential that this platform is secure. In 2017 the Council signed up to the National Cyber Security Centre's (NCSC) Web Check service.

Web Check is a website configuration and vulnerability scanning service, that checks, amongst other things, that:

- user data is protected both in transit and in the user's web browser
- the website is well engineered, configured and modern technologies are in use to protect it
- servers and their software are patched

Web Check does this on an ongoing basis, so the Council is informed of new issues as they emerge and as new checks are added.

### **3. Digital Members**

A report will be brought before the Executive during 2018 to provide an update on our Digital Member theme



## Appendix 2 – 2018/19 Digital Transformation Work Programme

[illegible]

### **Appendix 3 – 2018/19 Digital Business Cases**

- **Integrating Jadu web forms with maps**
- **Fly-tip Reporting**
- **Mobile Food Safety Inspection Enhancements**
- **Miscellaneous Payments Management System**
- **Litter Bin reporting**
- **Waste Contractor mobilisation**
- **Building Control Completion Certificate Self-serve Requests**
- **Corporate Purchasing Card System**
- **Housing Tenants - Self-serve Repair Requests**
- **Development Control - migrating critical data from spreadsheets**
- **Corporate Field Payment Solution**
- **Lone Worker Monitoring System**

#### Appendix 4 – Estimated up-front costs by 2018/19 Business Case

Business Case	Estimated up-front cost £
<b>Integrating Jadu web forms with maps and automated progress updates</b>	<b>0</b>
<b>Fly-tip Reporting</b>	<b>0</b>
<b>Mobile Food Safety Inspection Enhancements</b>	<b>0</b>
<b>Miscellaneous Payments Management System</b>	<b>0</b>
<b>Litter Bin issue reporting</b>	<b>0</b>
<b>Waste Contractor mobilisation</b>	<b>0</b>
<b>Building Control Completion Certificate Self-serve Requests</b>	<b>0</b>
<b>Corporate Purchasing Card System</b>	<b>0</b>
<b>Housing Tenants - Self-serve Repair Requests</b> (The estimated cost of the potential third-party software is £24,000 and would be funded from the Housing Revenue Account. As this report concerns proposed General Fund expenditure only, this project has no associated estimated up-front cost.)	<b>0</b>
<b>Development Control - migrating critical data from spreadsheets</b>	<b>20,000</b>
<b>Corporate Field Payment Solution</b>	<b>13,000</b>
<b>Lone Worker Monitoring System</b> (Although this project has identified a possible maximum £60,000 cost, this will not be confirmed until soft market testing has been completed during 2018/19. Any costs will fall into the 2019/20 Digital Work Programme.)	<b>0</b>
<b>TOTAL</b>	<b>33,000</b>