Introduction

- What is the Unified Communications Phase 2 project?
- Why are we implementing this project?
  - Cyber security / risk
  - GDPR compliance requirements
  - Review of existing communication & collaboration services
  - Open Scholarship (Science) – Research Data Management
- What impact will it have on staff?
  - New services, training, work practices
- Implementation Timelines
- Unified Communications – Phase 3
What is Unified Communications Phase 2 Project?
Providing Secure Storage & Collaboration Services for Trinity Data

Why are we doing this?

- External Cyber Security Audit – BDO 2016
- Significant Security Breach – April 2017
- Evolving Cyber Threats – Ransomware WannaCry May 2017
- GDPR Compliance – May 2018
- Service Gap – Data Storage and Collaboration
Known Cyber Security Risks impacting the University

- Malware, viruses and Ransomware
- Phishing and email fraud
- Weak Access control methods
- Phishing Threat
- Unencrypted Computers tablets, phones
- Compromise (Hacking) of IT Services managed Business systems
- Compromise (Hacking) of other Internet available business systems
- Low levels of Cyber Security Awareness/skills among users
- Ad-hoc use of cloud computing environments
- Non-compliance with cyber security requirements of GDPR
- Use of insecure personal devices tablets phones etc

Phishing Threat

Dear User,

We are processing your request to permanently terminate your mailbox account. Kindly click here if you did not make this request, and your account will be restored upon verification of your details.

We are sorry for any inconvenience caused.

Thanks,
Trinity College Dublin,
Dr. Geoff Bradley, MBA
Head of IT Operations and Academic Services
IT Services
Trinity College Dublin
phone: +353 (0)1 896 3429
e-mail: geoff.bradley@tcd.ie
web: www.tcd.ie/services
blog: blogs.tcd.ie/services
twitter: twitter.com/tcdservices
Phishing Threat

- Financial fraud
- Identify Fraud
- Theft of Research Data, Intellectual Property
- Malicious Damage
- Loss of Data
- Unauthorised Disclosure of Personal Data

Phishing Simulations

- Number of phishing emails sent: 6026
- Recipients who opened the email: 902
- Recipients who opened the attachment & enabled macros: 52
Phishing Training – An Ongoing Challenge

A Snapshot of GDPR

**Principles**
- Lawful Processing
- Purpose Limitation
- Transparency
- Consent
- Retention
- Minimisation
- Sensitive personal data
- Children’s data

**New & Enhanced Rights**
- Transparency & Notification
- Access
- Erasure
- Rectification
- Portability
- Profiling
- Automated decisions

**Responsibilities**
- Data Processors
- Data Transfers
- Data Breach Reports
- Data Protection by Design
- DPIAs
- DPO
- Penalties
GDPR Risks to the University

<table>
<thead>
<tr>
<th>Risk</th>
<th>Likelihood</th>
<th>Impact</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Litigation by one or more individuals against the University resulting in professional fees, legal costs, compensation</td>
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<td>Enforcement action by the Data Protection Commissioner (DPC) resulting in staff costs, consultancy costs, professional fees, remediation costs, reputational damage</td>
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<td>Audit and investigation by DPC resulting in staff costs, consultancy costs, professional fees, remediation costs, reputational damage</td>
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<tr>
<td>Litigation due to breach of contract with a data controller resulting in professional fees, legal costs, compensation, reputational damage</td>
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<tr>
<td>Administrative fines (capped @€1m* per incident, €20m for subsidiaries)</td>
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GDPR – Keep Personal Data Safe and Secure

Impact on staff’s day-to-day IT computing practices...

- Secure Computing Devices – Workstations, Laptops, Tablets, Phones
- Emphasis on encryption – Drive, USB, File
- Secure Storage – Local/Cloud
- Data Security by Design and Default
- Data Privacy Impact Assessments
- Due Diligence for Third Party Data Processors
- Secure Business Information Systems – DPIA, due diligence, compliant contracts
- Improved Education and Awareness
Review of Data Management Services

- IT Services 2017 review of data storage services
- Academic and Administrative areas involved
- Identified lack of available supported Storage Services
- Reviewed available Microsoft Product Suite
- Concluded Microsoft SharePoint and Teams would be a good solution for storage of range of Academic, administrative and research data
- Observed widespread usage of ‘free’ Dropbox (not GDPR compliant)

Open Scholarship (Science) / H2020 / FP9 / HRB ...
Inform / Impact: Dissemination of research data

UC2 - Providing Secure Storage & Collaboration Services for Trinity Data

UC Phase 2 - Project Deliverables
Providing Secure Storage & Collaboration Services for Trinity Data

Secure Networks, Computers, Collaboration and Sharing for Trinity Data

Trinity College Dublin, The University of Dublin
Two Step Verification for Email

Secure Document Storage & Collaboration Services
Supported Device & File Encryption Products

- Full Disk encryption – A must for data collectors in the field
- File/folder encryption – A must for data transfers e.g. from the field back to HQ - by email, or portable media such as USB drives

Firewall and Load balancer Enhancements

- Configuration of new technology to detect and mitigate threats to the University network.
- Provision of new Security reporting for business applications to detect and mitigate threats
Training & Compliance

IT Services

Keeping IT Secure

IT Security Tips and Good Practice
Anti-virus Information
Phishing & Fraudulent Emails
Laptop Encryption Service
Data Recovery
Secure Data Disposal
Software Security Updates
Data Backup & File Management

Keeping IT secure

Our aim is to provide support and guidance to keep staff and students proactive rather than reactive.

There is a published IT Security Policy which all Trinity staff and students are obliged to follow. This policy outlines Trinity’s approach to protecting the confidentiality, availability, and integrity of Trinity’s information technology resources.

A short video on IT Security

IT Security: what?

Timelines

<table>
<thead>
<tr>
<th>Quarter/Year</th>
<th>Q1 2018</th>
<th>Q2 2018</th>
<th>Q3 2018</th>
<th>Q4 2018</th>
<th>Q1 2019</th>
<th>Q2 2019</th>
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<td>Business Case Approval – CRC</td>
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<td>Detailed Project Planning/Design</td>
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<td>Deliverable 1 – Staff Secure Email/IS</td>
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<td>Deliverable 9 – GDPR Documentation</td>
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Unified Communications – Phase 3

- Unified Communications – rolling programme of work
- Next Phase – UC Phase 3, potential deliverables
  - Services for students (PhD, MSc by research, ...)
    - Potential migration of students to Office 365
    - Identity & Two Step Verification for Students
  - Advanced Threat Prevention
  - Data Loss Prevention services
  - Device Management Services
  - Additional Research Data Management services
  - Additional Training & Support

Questions?