

Legacy Technology 411:

Making Legacy Technology Risk Management Manageable

BY: Mike Powers

In March 2023, the HSCC published the HIC-Malts





Health Industry Cybersecurity

Managing Legacy Technology Security (HIC-MaLTS)



MARCH 2023

The HIC-MaLTS is 115 pages...

Table of Contents

I. Foreword – Use of "Technologies" versus "Devices"								
II. Introduction								
III. About the Health Sector Coordinating Council								
IV. Executive Summary								
V. Terminology: Definitions and Discussion								
VI. Iden	tifying a Potential Legacy Technology	11						
А.	For Healthcare Delivery Organizations (HDOs)	11						
В.	For Medical Device Manufacturers (MDMs)							
VII.	Core Practices	12						
А.	Governance	13						
В.	Communications	18						
C.	Cybersecurity Risk Management	27						
D.	Future Proofing	69						
VIII.	Challenges and Recommendations	80						
А.	Connectivity	80						
В.	End of Life/End of Guaranteed Support/End of Support (EOL/EOGS/EOS)	84						
C.	Third Party Servicers	89						
D.	Inventory/Asset Management	91						
E.	Software Bill of Materials (SBOM)	95						
F.	Patching	101						
G.	Third Party Component Risk Management	107						
IX. A	ppendix 1 – Example Technologies Used in Healthcare Environments	111						
X Ackr	nowledgements	112						

(That's a lot of pages!)

So let's take a step back...

...and ask what we really want to do.

I am an HDO, MDM, 3rd Party and I want to:

Avoid acquiring legacy technologies, or those that might become legacy quickly or unexpectedly

Protect the legacy technologies that I already have

Manage my non-legacy technologies to keep them non-legacy as long as possible

Make a smart, risk-informed decision about whether I need to replace a given legacy technology in my environment

Comply with SBOM Requirements (and take advantage of SBOM benefits)

Support my customers in managing technologies to keep them as non-legacy as long as possible

Design, deploy, and maintain secure and securable technologies

The HIC-MaLTS Can Help With All That!

Goal: Avoid Acquiring Legacy Technologies, or Those That Might Become Legacy Quickly or Unexpectedly

- How do I determine whether a technology may be "legacy"?
 - Identifying a Potential Legacy Technology (pgs. 11-12)
- How do I make sure I understand what terms/characteristics a technology may have, to know whether it might be "legacy"?
 - Terminology (pgs. 8-9)
- How do I develop a strategy around my organization's technology acquisitions and maintenance?
 - Defining a Legacy Technology Risk Management Strategy (pg. 14)
- How do I draft and negotiate my contracts to address legacy technology risks?
 - Considerations for Legacy Technology Communications (pgs. 19-26)
- How should I assess a technology for legacy risks?
 - Recommendations to Address Legacy Risk Management throughout Technology Lifecycles: Product Assessment Stage (pg. 33-34)
- How should I acquire technologies to avoid legacy risks?
 - Recommendations to Address Legacy Risk Management throughout Technology Lifecycles: Acquisition Stage (pg. 35)

Goal: Manage my non-legacy technologies to keep them non-legacy as long as possible

- How do I make sure that I know, understand, and am acting on my technologies' various "ages"?
 - Developing a Lifecycle Management Plan (pg. 16)
- How do I manage my non-legacy technologies to keep them secure and securable for as long as possible?
 - Managing Future Legacy Technologies (pgs. 31-40)
- How do I implement technologies in my environment to manage legacy risks?
 - Recommendations to Address Legacy Risk Management throughout Technology Lifecycles: Implementation Stage (pg. 36)
- How do I support technologies in my environment to manage legacy risks?
 - Recommendations to Address Legacy Risk Management throughout Technology Lifecycles: Support/Maintenance Stage (pg. 37)
- How can I keep up with patches?
 - Patching Lifecycle Recommendations (pgs. 50-69)
 - Patching (pgs. 101-107)

Goal: Protect the Legacy Technologies I Already Have

- How do I identify a potential legacy technology?
 - Identifying a Potential Legacy Technology (pgs. 11-12)
- How do I decide how much "risk" I can handle?
 - Establishing a model and criteria for risk tolerance (pg. 15)
- How do I manage the risks of my current legacy technologies?
 - Managing Current Legacy Technologies (pg. 28)
- My organization is having trouble with certain cybersecurity challenges. How do I:

Assess whether I can/should Ensure connect technologies to my prepare network, that may not have been manage designed for that purpose?		Ensure th prepared f manage my	that I understand, am d for, and appropriately my technologies as they age?			Understand how and want to leverage th support servio		l when I may hird-party cers?		Fully identify, track, and manag my inventory of digital technologies?	
• Connectivity (pgs. 80-84)			• End-of-Life/End-of-Support (pgs. 84-89)			• Third Party Servicers (pgs. 89- 91)			 Inventory/Asset Management (pgs. 91-95) 		
	Understand, produce, and effectively use SBOMs?			Keep up with patches, and design my patching procedures to be as least burdensome and effective as possible?			Understand the benefits and risks that third party components may pose, and what I may do to effectively manage them?				
•SBOM (pgs. 95-101)				•Patching (pgs. 101-107)				•Third Party Component Risk Management (pgs. 107-112)			

Goal: Make a Smart, Risk-Informed Decision About Whether I Should Replace a Given Legacy Technology

- Legacy technologies exist in my environment, and I recognize that they should be replaced to mitigate or avoid potential cybersecurity risks, but I have very real and very significant competing organizational priorities. How do I make a smart, risk-informed decision about whether I should replace a given legacy technology?
 - Responsibility Transfer Framework (pgs. 43-50)

Goal: Comply with SBOM Requirements (and take advantage of SBOM benefits)

- My customers, the government, and my own organization are demanding that I use, produce, and/or consume SBOMs. How do I familiarize myself with what SBOMs are, what they are for, and how I can most effectively take advantage of them?
 - Communications, SBOM (pgs. 22-23)
 - Challenges and Recommendations: SBOM (pgs. 95-101)

Goal: Support my customers in managing technologies to keep them as non-legacy as long as possible

- How do I understand what support expectations/needs my customers may have, and how to appropriately negotiate them?
 - Considerations for Legacy Technology Communications (pgs. 19-26)
- My customers and I both experience challenges related to certain specific technologies or issues. How do I:



Goal: Design, deploy, and maintain secure and securable technologies

- How may I design an effective, efficient cybersecurity risk management program?
 - MDM Risk Management Considerations (pgs. 40-43)
- How do I proactively consider the potential legacy risks that my technologies may face, and how to design to control for those risks?
 - Recommendations for Addressing Known Legacy Issues During Threat Modeling (pg. 70-73)
- How may I design secure technologies that address legacy risks, including the criteria I use to select what software I may use in my technology?
 - Recommendations for Secure Technology Design, Including Software Selection (pgs. 73-78)
- How may I facilitate my customers' secure deployment of my technologies?
 - Recommendations to Facilitate Secure Technology Deployment (pgs. 78-80)

Goal: Design, deploy, and maintain secure and securable technologies (cont'd)

• My customers and I both experience challenges related to certain specific technologies or issues. How do I:

Assess whether and how to connect technologies to networks, that may not have been designed for that purpose?	Ensure th prepared f manage my	at I understand, am or, and appropriately / technologies as they age?	Understand hov want to lever support	v and when I may age third-party servicers?	Make it easy for my customers to identify, track, and manage my technologies in their environments?	
• Connectivity (pgs. 80-84)	• End-of-Life (pgs. 84-8	e/End-of-Support 9)	• Third Party Ser 91)	vicers (pgs. 89-	 Inventory/Asset Management (pgs. 91-95) 	
Understand, produce, and effectively SBOMs? •SBOM (pgs. 95-101)		Keep up with pa patching proce burdensome and	tches, and design my edures to be as least effective as possible?	Understand third party what I ma	the benefits and risks that omponents may pose, and do to effectively manage them?	
		•Patching (pgs. 10	1-107)	•Third Party Managemen	Component Risk nt (pgs. 107-112)	



Questions?





We value your feedback!

Please scan the QR code to submit a survey for this session.

Thank You!