

From: Kirk Holland [mailto:kirk.holland@n6.com.au]
Sent: Thursday, 11 January 2018 12:12 PM
To: Geoffrey Coombs <G.Coombs@murdoch.edu.au>; Lindsay GRAYSON
<Lindsay.GRAYSON@austin.org.au>
Cc: Paul Rodger <paul.rodger@n6.com.au>

Subject: Re: Response to Meltdown and Spectre threats - Hand Hygiene and AGAR databases

Hi Gents,

As I've just discussed with Geoff, I think we can claim that there is a misunderstanding of terminology in relation to HHA and AGAR and whether their configuration represents a governance issue.

In many conversations and even in the correspondence from Neville, they are referring to HHA and AGAR as Databases. In actual fact they are what is known as *Web Applications*. And yes, they do have databases, but the distinction is important for the following reasons.

A database is simply a data storage mechanism, therefore users who have access to a database have access to all of the data within it (except in the case where database administrators set privileges and access rights for users who connect to the database). So, if HHA and AGAR were simple databases, and users were granted access to these databases, and they shared data, then you would have a risk that irresponsible users might attempt to access data that they don't have permission to see.

On the other hand, a Web Application controls data access for every user who is granted access to the application. It is in this way that we impose controls, for example, that prevent one hospital administrator from seeing another hospital's auditing data. Within the applications we have many roles and many user <-> entity connections (entities being hospitals, regions etc) to ensure that there is no risk of unauthorised data access.

Of particular importance here is the fact that HHA Administrators are separated from AGAR administrators. The AGAR Administrator role has no access to HHA-specific data (sessions, audits, moments etc) and the HHA Administrator role has no access to AGAR-specific data (Episodes, Drug Susceptibility analysis etc). The only data that is shared and visible across both systems is data that is already in the public record, that is, Jurisdiction, Region and Hospital data; the structure of the Australian Healthcare sector.

So in short, if HHA and AGAR were databases and databases only, then there is a potential for data governance issues. But given that they are web applications that *use* databases, no such risk exists. The only people who have access to all of the data of both systems are Nexus6 staff (and only a limited few) and we would have this access regardless of the configuration of servers, because we need it to provide support.

I think it would be fair for you to claim that earlier assurances given to the Commission were based on the fact that we are dealing with applications, not databases.

Regards,
Kirk
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From: "MELEADY, Kathy" <Kathy.Meleady@safetyandquality.gov.au>
Date: 11 January 2018 at 7:18:51 am AWST
To: 'Geoffrey Coombs' <G.Coombs@murdoch.edu.au>, "lindsay.grayson@austin.org.au" <lindsay.grayson@austin.org.au>, "Sally.Havers@austin.org.au" <Sally.Havers@austin.org.au>
Cc: "STEWART, Kim" <Kim.Stewart@safetyandquality.gov.au>, "BOARD, Neville" <Neville.Board@safetyandquality.gov.au>, "PEARCE, Damen" <Damen.Pearce@safetyandquality.gov.au>, John Turnidge <jturnidge@gmail.com>
Subject: FW: Response to Meltdown and Spectre threats - Hand Hygiene and AGAR databases
Hi Lindsay and Geoff,

It appears from the email below that the separation of the data between AGAR and HHA did not occur as agreed some time ago.

On everyone's return from leave it will be important to clarify and take action to rectify if needed.

Thank you
Kathy

From: Paul Rodger <paul.rodger@n6.com.au>
Sent: Thursday, 11 January 2018 8:51:18 AM
To: MELEADY, Kathy
Cc: PEARCE, Damen; STEWART, Kim; BOARD, Neville
Subject: Re: FW: Response to Meltdown and Spectre threats - Hand Hygiene and AGAR databases

Hi Kathy.

The hand-hygiene compliance application (HHCAPP) and the Australian Group on Antimicrobial Resistance (AGAR) Data Entry Portal both use exactly the same database.
They have slightly different URLs:
https://hhcapp.hha.org.au/en_AU/HHA/ is the Hand Hygiene compliance application (HHCAPP)
https://hhcapp.hha.org.au/en_AU/AGAR/ is the Australian Group on Antimicrobial Resistance (AGAR) Data Entry Portal

Both are hosted from the same Bulletproof server (hai-dvmh-app-02).
(The HHA learning management system, <https://hha.southrock.com/> will remain up and is separate - it runs on AWS infrastructure that has had its hypervisor infrastructure patched by Amazon in December and is already running the KPTI mitigation, so is not affected, see: <https://aws.amazon.com/security/security-bulletins/AWS-2018-013/>)

Thanks,

Paul Rodger
Nexus6 Software
<https://www.n6.com.au/>

On 11 January 2018 at 08:02, MELEADY, Kathy <Kathy.Meleady@safetyandquality.gov.au> wrote:

Hi Paul,
Could you please advise more specifically what the HAI infection includes? is it the same as HHA ? How are the data for HHA and AGAR "separated" on the server?

Thanks

Kathy

Adj Prof Kathy Meleady PSM
Director, Commonwealth Programs

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From: HAVERS, Sally [mailto:Sally.HAVERS@austin.org.au]
Sent: Thursday, 11 January 2018 7:58 AM
To: MELEADY, Kathy

Subject: Fwd: Response to Meltdown and Spectre threats - Hand Hygiene and AGAR databases

Hi Kathy,
See Paul's email below.

I am not in the office and still in Qld so not able to track the emails as well as I would if I was in the office. Apologies!!

Sally

Sally Havers

From: Paul Rodger <paul.rodger@n6.com.au<<mailto:paul.rodger@n6.com.au>>>
Date: 11 January 2018 at 12:10:43 am AEST
To: "MELEADY, Kathy" <Kathy.Meleady@safetyandquality.gov.au<<mailto:Kathy.Meleady@safetyandquality.gov.au>>>, "Sally.Havers@austin.org.au" <<mailto:Sally.Havers@austin.org.au>>>, "WALLACE, Mike" <Mike.Wallace@safetyandquality.gov.au<<mailto:Mike.Wallace@safetyandquality.gov.au>>>, "Cc: kirk.holland@n6.com.au" <kirk.holland@n6.com.au>> <kirk.holland@n6.com.au<<mailto:kirk.holland@n6.com.au>>>, Lucas Smith <Lucas.Smith@bulletproof.net<<mailto:Lucas.Smith@bulletproof.net>>>, "STEWART, Kim" <Kim.Stewart@safetyandquality.gov.au<<mailto:Kim.Stewart@safetyandquality.gov.au>>>, "PEARCE, Damen" <Damen.Pearce@safetyandquality.gov.au<<mailto:Damen.Pearce@safetyandquality.gov.au>>>
Subject: Re: Response to Meltdown and Spectre threats - Hand Hygiene and AGAR databases

Hi Neville and Damen.

Please note that if both Bulletproof servers are down for patching, there will be no place where we can host a downtime message (because the servers will be unavailable). This will also mean that both the HHA website and the Hand Hygiene / AGAR app will be unavailable.

One alternative is for us to change DNS to point to some Nexus6 infrastructure in AWS Sydney to host the downtime message for www.hha.org.au - let me know before 9am if you don't want us to use Nexus6 AWS infrastructure to host the downtime message.

Thanks,

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Paul Rodger
Nexus6 Software
[.n6.com.au](http://n6.com.au)%2F