MHHS Webinar: Introduction to the Data Integration Platform (DIP)
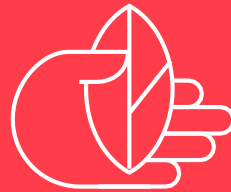
Introduction

Richard Gwatkin
5 minutes
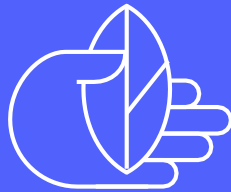
Introduction to the DIP Service Provider

Mark Corley & team (Avanade)
10 minutes

The DIP delivery approach & timeline
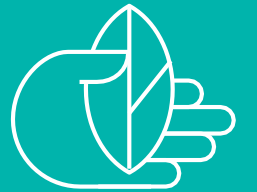
Paul Daniels (Avanade)
15 minutes

Reminder of support and Q&A

Facilitated by Kevin Redmond
15 minutes

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Please send in your questions using sli.do

#MHHS

Questions will be answered at the end of the webinar.

A complete Q&A will be made available on the website.

What we'll cover today

Introduction to the Data Integration Platform (DIP) role and procurement process overview

Introduction to the DIP Service Provider, Avanade

Insight into work already completed by the DIP

Overview of the DIP delivery approach and timeline

Reminder of ways to engage with the DIP

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Introduction to the Data Integration Platform (DIP) role

What is the DIP?
- The DIP is a message orientated, event-driven middleware component at the core of the MHHS Target Operating Model (TOM) landscape
- The DIP will be responsible for processing messages to and from all industry participants operating under the TOM, using next generation event messaging architecture to deliver a cloud-native, serverless service which will provide the resilience, availability and scalability required to enable participants to move to half-hourly settlement

Why do we need it?
- Half-hourly settlement requires a resilient, available and scalable platform that manages large volumes of energy data to ensure the transition to half-hourly settlement
- A primary use case of the DIP will be for suppliers to send half-hourly data to Elexon so that it can be processed for faster, more accurate settlement

Appointment of Avanade
- Following a thorough procurement process, the MHHS Programme and Elexon are pleased to announce the appointment of Avanade with their Microsoft Azure infrastructure solution as the DIP Service Provider (DIPSP) for the MHHS Programme

## Participant engagement with the DIP
- Participants will continue to engage with the Programme team for any queries concerning the DIP
- For any DIP queries, please email the PPC team at PPC@mhhsprogramme.co.uk

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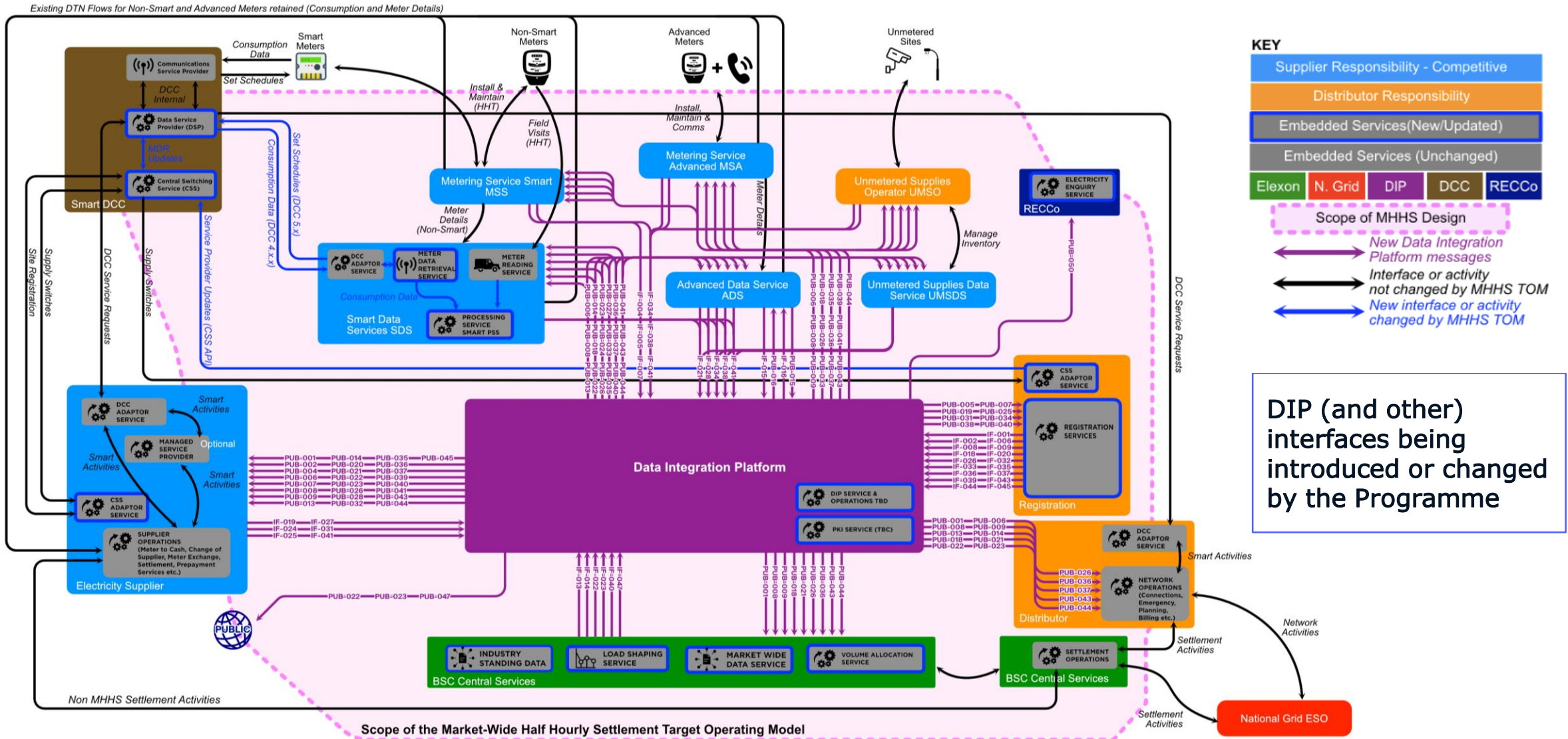
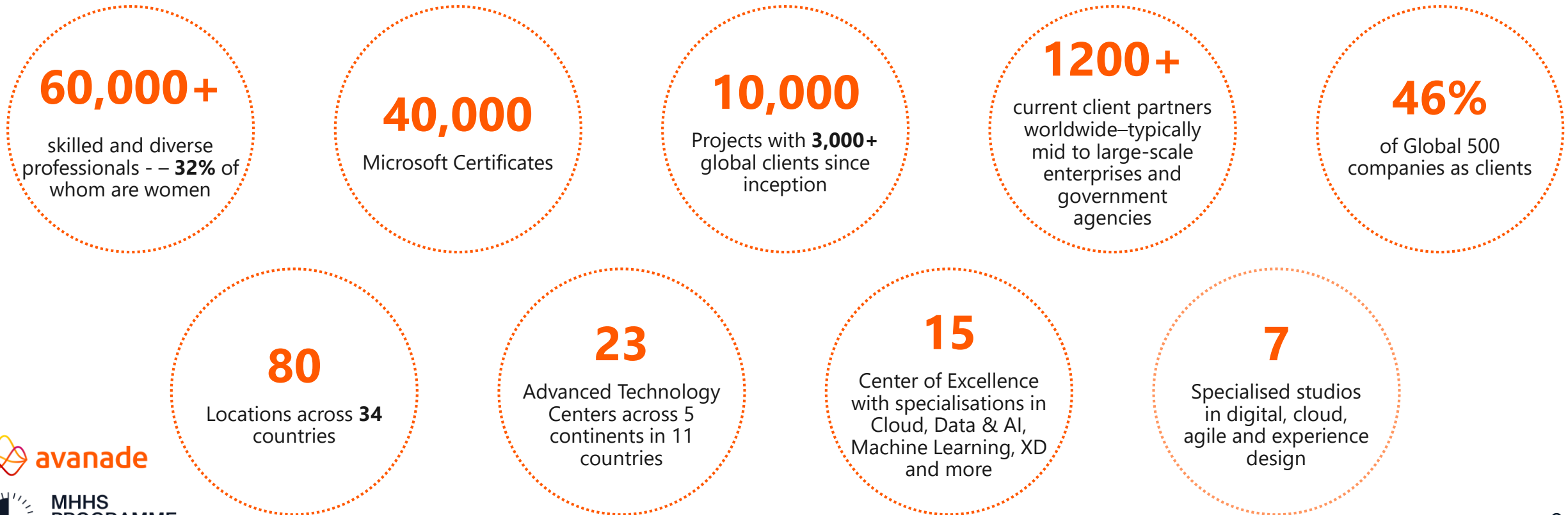DIP (and other) interfaces being introduced or changed by the Programme

Introduction to the DIP Service Provider (DIPSP)

Mark Corley (Avanade)
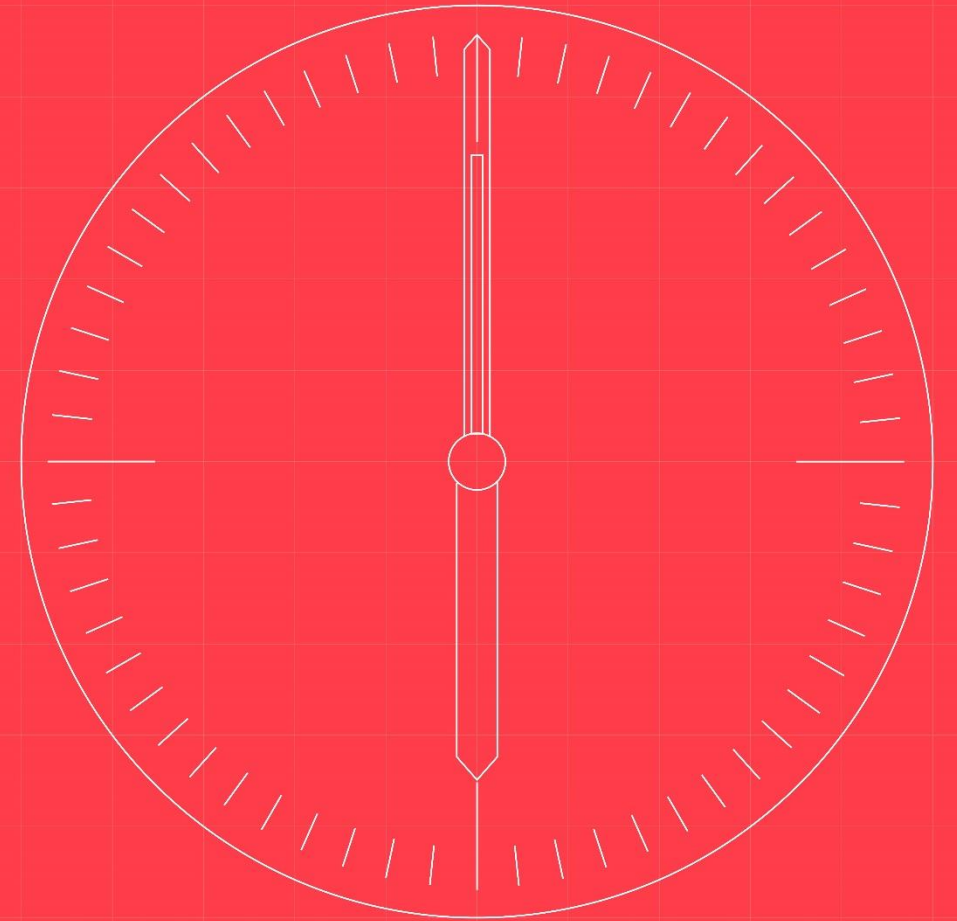
Avanade is the leading provider of innovative digital and cloud services, business solutions and design-led experiences delivered through the power of people and the Microsoft ecosystem. Founded in 2000.

Our purpose is to make a genuine human impact.

60,000+
skilled and diverse professionals - – **32%** of whom are women

40,000
Microsoft Certificates

10,000
Projects with **3,000+** global clients since inception

1200+
current client partners worldwide–typically mid to large-scale enterprises and government agencies

46%
of Global 500 companies as clients

80
Locations across **34** countries

23
Advanced Technology Centers across 5 continents in 11 countries

15
Center of Excellence with specialisations in Cloud, Data & AI, Machine Learning, XD and more

7
Specialised studios in digital, cloud, agile and experience design

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Mark Corley
Exec Sponsor

- Head of Energy & Utilities at Avanade with over 20 years of experience in architecting large-scale, mission-critical systems on the Microsoft platform.

- Has led multiple large Azure implementations in the Utilities & Energy Sector.

Paul Daniels
Delivery Lead

- Delivery Management Director with 20+ years of experience leading complex technology programs and projects, primarily in the energy sector. Experience includes Azure Migration and Data Modernization.

- Leads Avanade's DIPSP team.

Paul Brown
Lead Architect

- Lead Architect with 30 years of experience in technology and application transformation, skilled in cloud-based transformations (Azure, AWS, and private cloud) and recent experience in the Energy sector on key programmes.

- Strong focus on business and technical outcomes across various industries.

Lou Otway
Apps Lead

- Application architect.

- Lou has a background in software engineering and has designed many Azure applications for a range of customers.

Ashley Mullin
Infra Lead

- Infrastructure Architect with over 18 years industry experience. Ashley has been involved with numerous solutions and deliveries of complex Azure platforms, including Modern Applications, Data and Landing Zones.

- Solution Lead for Avanade Modern Engineering Hub – NTC.

Achour Oualah
Testing Lead

- An experienced test manager with nearly years' Test experience in software testing and Management.

- Managed and delivered a portfolio of testing projects with various organisations: E2E Test management, Test Planning, Test strategy, Test processes, Test metrics Test reporting and defect management process.
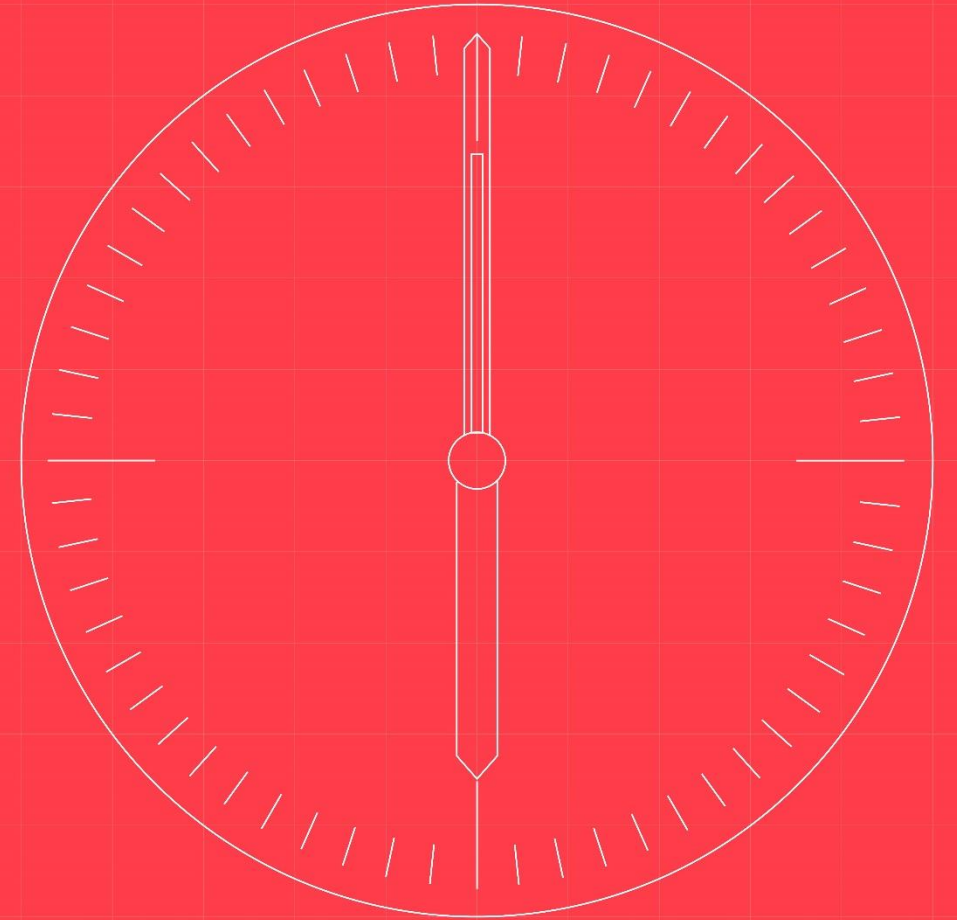
Alan Parsons
Security Lead

- Experienced security lead, Azure architect and developer, with a particular focus on secure application development and Identity and Access Management.

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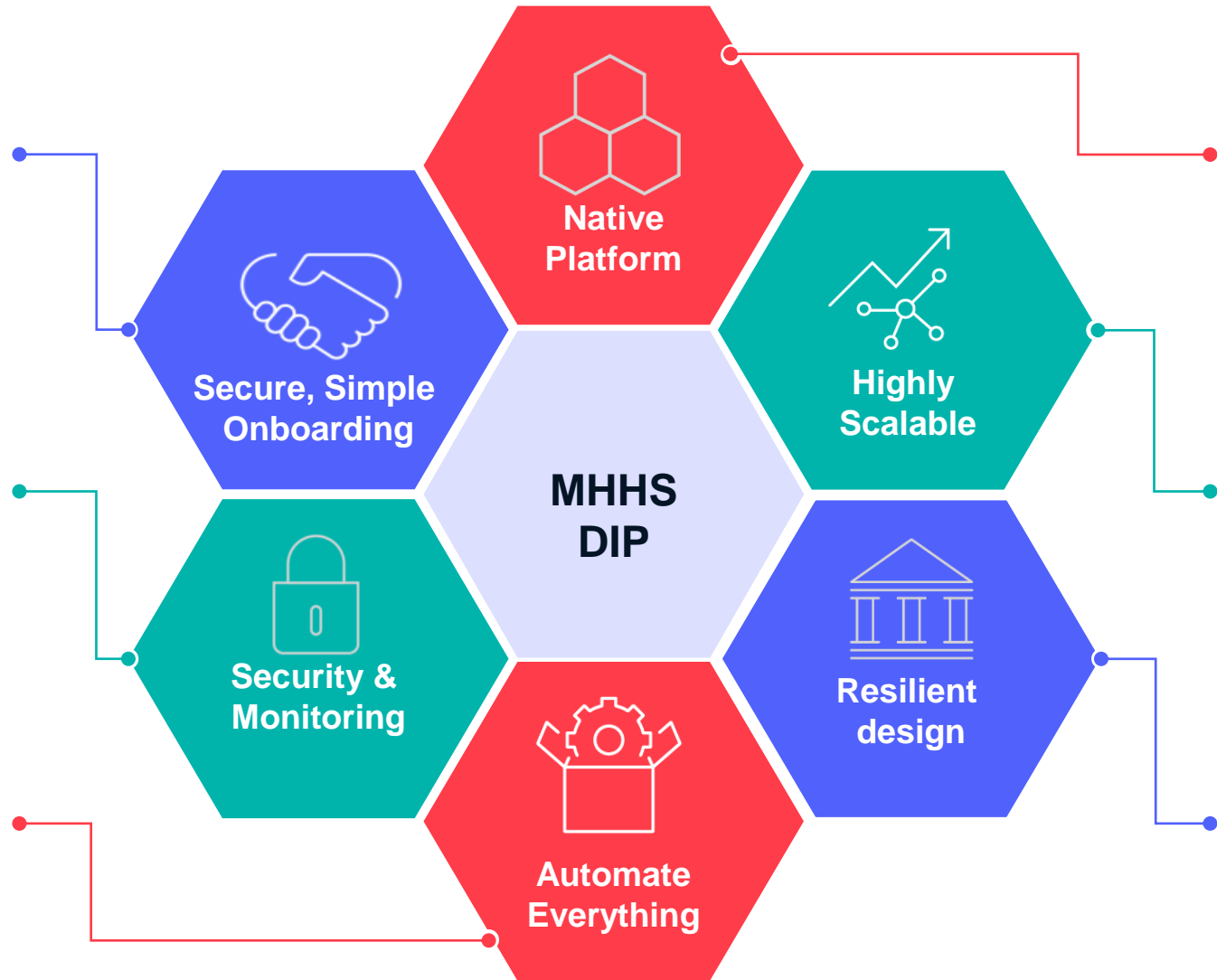
The DIP delivery approach & timeline
Paul Daniels (Avanade)

PKI Certificate Lifecycle Management Services provided by a global PKI provider, and will be integrated into the MHHS DIP Platform to provide a seamless and secure onboarding processes

Highly Secure Platform supported by Azure Sentinel-based Security Managed Services, Cloud Security Posture Management (CSPM), Azure Active Directory, with SAST/DAST/SCA security testing.

Solution will be built and deployed using automated, DevOps pipelines, Infrastructure as Code and Azure DevOps (ADO) for Infrastructure/ Security with ADO for Application Deployment, supported by automated testing

Native Platform

Secure, Simple Onboarding

MHHS DIP

Highly Scalable

Security & Monitoring

Automate Everything

Resilient design

Makes use of Azure Platform as a Service (PaaS) to provide a highly-efficient solution for Core Messaging and Infrastructure Services

Provides a highly scalable solution capable of supporting planned demand, unplanned usage patterns and significant growth in message volumes

Highly resilient, dual-region solution (Azure UK South/UK West) - no single point of failure and the ability to recover effectively from any outage

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Initial DIP team fully mobilised for the design phase

Work to date reviewed
- Initial workshops held with MHHS architects to validate the preparatory design work, focussed on Azure infrastructure.
- Mobilisation of seven workstreams: Security, Infrastructure, Applications, Testing, Delivery & Change, Hypercare and Service Design.
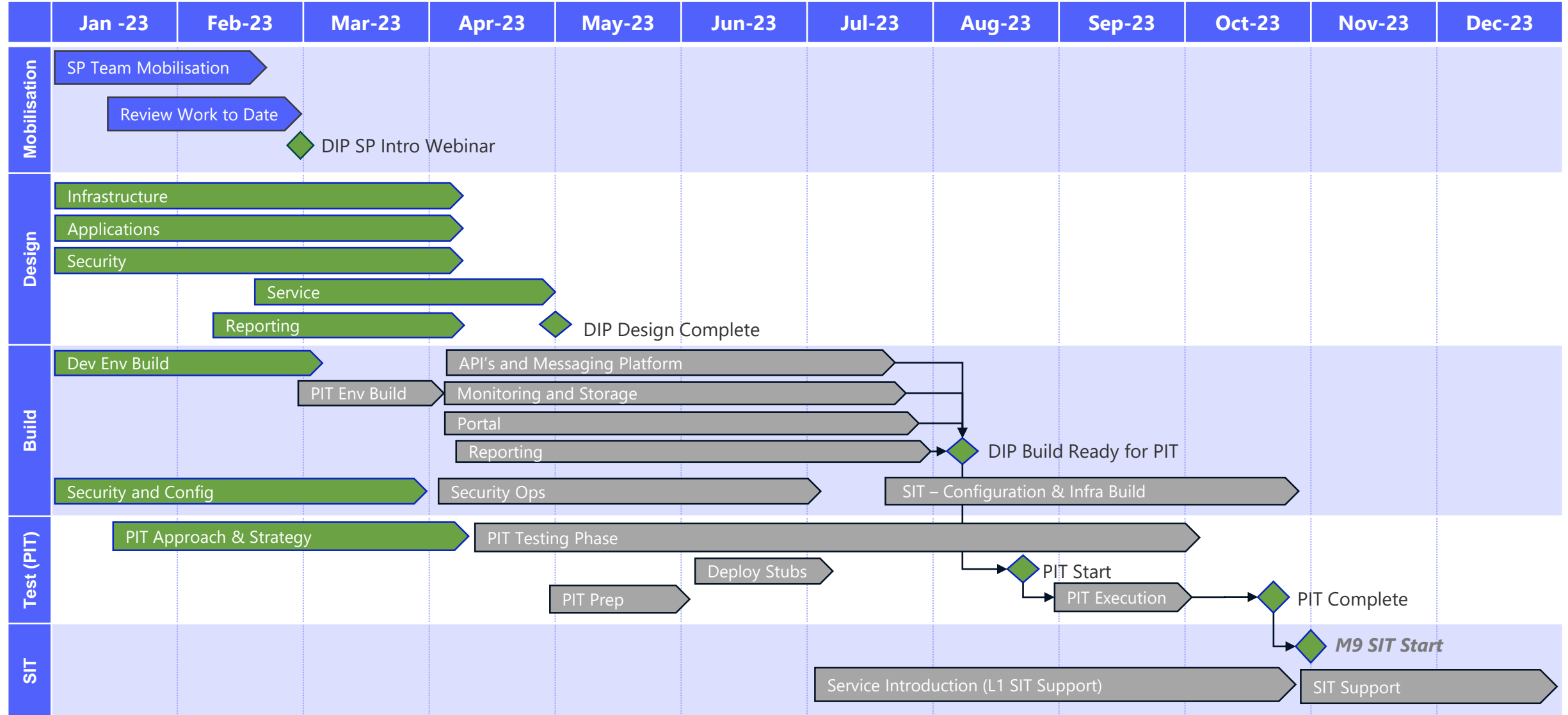
Design progressing to plan
- **Initially worked through the priorities for the design phase,** developing and allocating tasks and work in Azure DevOps.
- **Setting up infrastructure early,** putting tenant structure and governance in place for Azure environments, creating environment specifications in readiness for building out the environments.
- **Understanding application design:** executing various proof of concepts for message flow and validation.
- **Security:** focus on certificate management. GlobalSign (PKI certificate provider) onboarded and engaged in design. Work on ISO27001 certification ongoing.
- **Testing integration plans ongoing** between all streams and design work started on DevSecOps testing approach for Dev and PIT testing.

Environment preparation & build in progress
- High Level Design for the Development & PIT environments agreed and build out of Infrastructure as Code (IaC) is continuing.
- Delivery of Development environment due for completion end of March 2023.

On track for DIP delivery for Milestone 9 (SIT Start)
- While still early in the programme for Avanade, we are on track to meet Milestone 9 for the Programme.

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	Jan -23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23

Mobilisation
- SP Team Mobilisation
- Review Work to Date
- ◆ DIP SP Intro Webinar

Design
- Infrastructure
- Applications
- Security
- Service
- Reporting
- ◆ DIP Design Complete

Build
- Dev Env Build
- PIT Env Build
- API's and Messaging Platform
- Monitoring and Storage
- Portal
- Reporting
- ◆ DIP Build Ready for PIT
- Security and Config
- Security Ops
- SIT – Configuration & Infra Build

Test (PIT)
- PIT Approach & Strategy
- PIT Testing Phase
- Deploy Stubs
- PIT Prep
- ◆ PIT Start
- PIT Execution
- ◆ PIT Complete

SIT
- ◆ *M9 SIT Start*
- Service Introduction (L1 SIT Support)
- SIT Support

Key: ◆ On Track ◆ At Risk ◆ Delayed ◆ Complete

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DIP Delivery Approach

- For infrastructure development we use Infrastructure as Code (IaC) to automate everything we build (using Terraform)

- We use Azure DevOps to automate our deployment pipelines for Infrastructure and Applications, and we integrate testing services (functional, security) into the process before deployment

- We will use Azure Active Directory to manage participant access to the portal and have one place for services such as certificate management and reporting

What should participants look out for?

- Look out for initial information on certificate management processes – once approved by the Programme there will be ongoing communication of the requirements and processes underpinning the GlobalSign service

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Working Groups

- There are a number of active Level 4 Working Groups which are key for engaging across all elements of the Programme impacted by the DIP

- This includes the **System Integration Testing Working Group** (SITWG) and **the Qualification and End-to-end Sandbox Working Group** (QWG)

- These working groups are open to all participants

- If you'd like to attend please email PMO@MHHSProgramme.co.uk

DIP Support

- We welcome any queries regarding the DIP and are here to support participants as they move through DBT and into SIT or Qualification

- If you have a query in relation to the DIP, either contact your PPC representative – or email the PPC team at PPC@MHHSProgramme.co.uk

- The PPC Team will triage any queries, ensuring they sit with the right team to support you as soon as possible

PPC Bilaterals

- If you would like to schedule a monthly bilateral with the PPC team please reach out to PPC@MHHSProgramme.co.uk

- If you would like a **more in-depth session with either our Design or Testing teams**, please reach out to your PPC Representative for more information

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