

HPE Provider Management Suite (PMS)

For the Virginia Provider Services Solution (PRSS), we are delivering our Provider Management Suite in a SaaS model. The Suite is the primary touch point for provider interaction with the Virginia Medicaid program. The Provider Management Suite is an online, browser based app requiring no customer component download. Authorized users can view/update data in the browser based windows of the modules based on their security profile and role-based access. The HPE Provider Management Suite is MITA-aligned and designed for MITA. MITA 3.0 compliance is at the core of this SOA solution, with built-in support for the Provider Management business process. http://rcwiki.azurewebsites.net/index.php?title=Overview_of_the_MITA_Initiative The suite supports the two business areas and five processes the MITA guidance outlines. DMAS_PRSS_009 MCSS Prov Serv RFP No 2016-02-Technology.docx – pages 2/7/20/34/91/135 of 148

SAAS Software as a Service

CONSUME



Layers describe the logical groupings of the functionality and components in an application. Tiers describe the physical distribution of the functionality and components on separate servers, computers, networks, or remote locations.

PURPOSE: This Fit-for-Purpose view is to identify the PRSS HP solution as derived from the 1,830 pages of HPE's RFP 2016 response... whew!

HPE Provider Management Suite
 Contains easily identified modules—Provider Management, Provider Portal, Provider Enrollment, Provider Screening, and Microsoft Dynamics Customer Relationship Management.
 Each module's attributes include the following: Application services layer; User interface; Reporting interface; Database
 The HPE Provider Management Suite directly addresses the MITA Seven Conditions and Standards, Industry Standards Condition.
 The Provider Management module will interface with CMS to capture Clinical Laboratory Improvement Amendments (CLIA) certification information and the specific procedures each laboratory is authorized to cover. Providers will supply their CLIA information at the time of enrollment. This information is validated against the master CLIA table before being added to the provider's file. CLIA data will be used in claims adjudication. Through the user interface, users can associate a Drug Enforcement Administration (DEA) number to a specific provider. A quarterly interface with the DEA will update the numbers in our Provider Master File. We will maintain this information for pharmacy providers and other providers as needed.
 The HPE Provider Management Suite is MITA-aligned and was designed for MITA. MITA 3.0 compliance is at the core of the SOA our solution provides, with built-in support for the Provider Management business process. Our Provider Management Suite supports the two business areas and five processes the MITA guidance outlines and the following figure depicts
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HPE CloudSystem Enterprise
 The DMAS comprehensive private cloud solution we propose comprises HPE hardware and software, professional consulting and implementation services, and ongoing end-to-end management services. The foundation for the solution is HPE CloudSystem Enterprise, the market's most complete, integrated, and open cloud platform. HPE CloudSystem Enterprise is a pre-integrated solution that lets you create and manage virtual and physical pools of servers, storage, backup, and networking resources using a common management layer.
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HPE Data Center Clarksville, VA
 The HPE data center provides a multi-tenant cloud infrastructure for hosting Medicaid implementations. This infrastructure features secure Internet access to vendor-supported systems, Virtual Private Networks (VPNs), approved connections to commonwealth or state networks, and secure remote-access services. The data center also takes advantage of server virtualization. The future expansion of cloud-based services within this architecture is highly realizable, giving states or commonwealths SaaS capability as they collaborate on MITA features.
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Web Browsers Supported
 The HPE websites will be accessible using common major web browsers such as, but not limited to, Chrome, Firefox, Internet Explorer, Edge, and Opera, and will be compatible with previous versions approved by DMAS. We regression test our portals using Chrome, IE, and Firefox, using the current version and back two version (-2).
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HPE CloudSystem Enterprise Foundation of the overall solution.
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HPE Helion Managed Private Community Cloud (MPCC)
 MPCC runs on HPE's Converged Infrastructure architectural model. This model brings servers, storage, network, software, and security together into an optimized and efficient resource pool so applications can share the infrastructure more effectively. Transforming silos of resources to increase infrastructure sharing drives greater levels of usage, efficiency, and flexibility. Workloads are securely hosted on physical or virtual servers, whether the infrastructure sits in a data center that you, a partner, or HPE manages. HPE Converged Infrastructure addresses your IT objectives, including reducing complexity, risk, and data center footprint.

HPE Helion MPCC provides ongoing management and infrastructure life cycle services for dedicated private clouds using HPE CloudSystem Enterprise technology.
 Similar to the HPE-hosted solution, HPE recommends HPE Helion MPC that would be dedicated to DMAS' workload. Although the purpose is to host the provider management and provider enrollment applications, VITA could take advantage of the MPC to move existing cloud-ready or future workloads.
 Appendix A – Service-Level Agreements.

With the VITA-hosted solution we recommend an HPE Helion MPC that would be dedicated to DMAS' workload. Although the purpose is to host the provider management and provider enrollment applications, VITA could take advantage of the MPC to move existing cloud-ready or future workloads.
 Server, storage, and backup devices—HPE Helion MPC uses HPE's Converged Infrastructure including Reliant Gen8 blades running inside c7000 blade enclosures. Integration with a storage area network (SAN) storage device is required for an HPE Helion MPC environment. Our private cloud offering uses 3PAR storage options as a configuration standard. For standard backup services we rely on HPE's B6500 120TB Store Once Backup System.
 Operating system support—We provide a standard build for then monitor and manage the following virtual and physical operating systems:

Microsoft Windows 2008 R2, 64-bit; Microsoft Windows 2012, 64-bit; Red Hat Enterprise Linux (RHEL) 5.10, 64-bit; RHEL 6.5, 64-bit; SUSE Linux Enterprise Server (SLES) 11 SP3, 64-bit
 Storage services—Private cloud storage uses HPE 3PAR enterprise storage designed for cloud environments. The storage hosts OS images, virtual snapshots, and application data. The OS images for virtual and physical machines boot from the SAN. Networking—HPE Virtual Connect Flex 10 scales bandwidth up or down, allocating the most bandwidth to the applications that require it.
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HPE Hosted through their Tier-3+ primary Mid-Atlantic Data Center (MDC) in Clarksville, VA
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HPE Tier-3 Recovery Data Center is in Colorado Springs, CO
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Enterprise Enabling Delivery and Global Excellence (EDGE)
 HPE's Healthcare EDGE Process Framework for Systems Development Life Cycle (SDLC) that aligns with the CMS Enterprise Lifecycle (ELC). EDGE SOA governance processes and components typically used by HPE listed on p19.
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Microsoft BizTalk
 HPE will be using Microsoft's BizTalk ESB for their PRSS, with data being shared to the ISS operated ESB. BizTalk includes various adapters for communication protocols so industry-standard communication methods such as HTTPS, SFTP, and SOAP can be used to securely exchange messages.
 Scalability—BizTalk accommodates adding computers to the BizTalk group configured with the appropriate host instances. Load balancing—BizTalk automatically balances instances of the process across the servers with a related host instance. High reliability—BizTalk provides active/active clustering. If one BizTalk computer has a failure, processes continue to be executed by other host instances.
 Through our ESB, powered by Microsoft BizTalk, we will share the data within the Provider Data Store with the other Virginia MES vendors and EDW efficiently and accurately. The Virginia PRSS we propose is built on the ESB foundation to integrate the components of the solution. This robust ESB will provide the ability to exchange data with external entities—including DHP, Licensing Boards, Health Information Exchange (HIE), and other MES vendors.
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Records Management v8.0 (RM8)
 For this project, HPE will deliver Records Management v8.0 (RM8) as the central repository and document management tool. Formerly known as HP TRIM. HP Records Manager 8 is designed to meet the International Standard of Records Management (ISO 15489:2001), as well as elements of ISO16175: Principles and Functional Requirements for Records in Electronic Office Environments. <http://infoprosiciency.com.au/SoftwareProducts/HPEnterprise/RecordsManager.aspx>
 HPE Content Manager - RM <https://community.hpe.com/t5/HPE-Content-Manager-HPE-RM-Forum/bd-p/trc-10158.WNUHAv6Qx-E>
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Microsoft OneNote
 Because we collaborate frequently, we also use Microsoft OneNote for sharing materials.
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Identity Credentials Access Manager (ICAM)
 The HPE solution provides the capacity to manage creating unique and permanent user IDs across multiple systems. The ICAM system will be provided by the systems integrator. We will collaborate and cooperate with the ISS vendor to meet the Department's vision of a single point of entry to the MES.
 Requirement No. PRSS-SSDR-SAD-012 The Solution shall provide the capacity to manage the creation of unique and permanent User ID's across multiple systems. The HPE solution provides the capacity to manage creating unique and permanent user IDs across multiple systems. The Identity Credentials Access Manager (ICAM) system will be provided by the systems integrator. We will collaborate and cooperate with the ISS vendor to meet the Department's vision of a single point of entry to the MES.
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Compliance Audit Splunk Tool
 For the PRSS, HPE will use the COTS audit tool, Splunk, to produce audit trails and audit logs of application and engineering activities on the production Provider Management Suite—including inquiry transactions. Splunk is a regular feature in our healthcare industry solutions for engineering logs.
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Cloud Service Automation (CSA) – Infrastructure Provisioning Automation
 Combined with Operations Orchestration (OO) and Matrix Operating Environment, CSA automatically enables the design and provisioning of infrastructure services in minutes along the user-requested infrastructure configuration. HPE Server Automation software enables us to automatically perform activities such as server discovery to provisioning, patching, configuration management, and script execution to comply with HPE IT configuration standards. CSA also provides the foundation for your standard cloud service catalog presentation, automation, management, and orchestration.
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Medical Assistance Provider Incentive Repository (MAPIR)
 HPE's solution models are shared from state to state, delivering low-risk, cost-effective components. Our MAPIR offering manages meaningful use information for multiple customers. The MAPIR multi-state collaborative is an example of our collaboration in the Medicaid environment. 13 states are now recognizing savings, gaining shared knowledge and best practices, and working to effectively promote using certified electronic health record technology.
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 Electronic health records (EHRs) are gaining ground nationwide. In concert with the Pennsylvania Department of Public Welfare Office of Medical Assistance and 12 other state Medicaid programs, HP developed a software application to administer the Medicare and Medicaid EHR incentive payment program. This application is known as the Medical Assistance Provider Incentive Repository or MAPIR. It embodies the Centers for Medicare and Medicaid Services' (CMS) vision for collaboration, cost sharing, and coordination in administering the EHR Incentive Program. After its first year, the program issued more than \$1.4 billion in incentive payments to providers across the country. Configured by you, the application core is integrated into your state's secure provider portal and financial system to perform actual provider payments. <http://blog.pcm.com/2015/12/21/share-costs-and-save-time-with-hp/>

InRule
 HPE using InRule for their Rules Engine and irVerify for their Test Tool. The irVerify feature of InRule provides a debugging tool for power users and developers. The stand-alone Provider Enrollment module will operate independently and can be loosely coupled into a cohesive MES using web services. The module architecture includes an advanced business rules engine, InRule, supporting the ability for human-readable rules to be configured independent of the application code.
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InRule®, the premier business rule technology for the Microsoft® platform, today announced a partnership to help Hewlett Packard Enterprise advance its Business Process as a Service (BPaaS) solutions. "The modernization of legacy systems can be a daunting prospect for many organizations and the competencies of cloud, mobile and social add additional layers of complexity," said Anthonie Withers, director and general manager, Microsoft Business Application, HPE. "By partnering with companies like InRule Technology, HPE can deliver agile, scalable solutions that meet our customers' business objectives while providing valuable ROI in less time, allowing organizations to maintain their competitive edge in the market today and in the future." InRule® business rules engine supporting HPE's Business Process as a Service (BPaaS) solutions. <http://www.inrule.com/news-events/news-list/inrule-technology-announces-business-process-as-a-service-bpaas-partnership-with-hewlett-packard-enterprise/>

K2 blackpearl
 HPE using K2 BlackPearl BPM software Workflow Tool and powers the overall provider management suite. The HPE Workflow Management process is powered by K2 blackpearl.
 The K2 blackpearl workflow engine used in the Virginia Medicaid Provider Services Solution will support the intelligent assignment, queuing, notification, escalation and management of requests, interactions and relationships with stakeholders. K2 is integrated into the Provider Management Suite.
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SQL Server Reporting Services (SSRS)
 SSRS makes visible business and operational data through ad hoc reporting of provider management information.
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 The SQL Server Reporting Services (SSRS) provides visibility into business and operational data.
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The Provider Data Store
 Flexible, table-driven DB accessed using online browser-based windows. The table-driven design provides the ability to update provider information as we receive changes from the Commonwealth or from providers. The rules engine interrogates data updates, applying edits & audits, to ensure data is valid and meets DMAS-specified parameters & criteria.
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 The Provider Data Store within the Provider Management Suite will contain complete, accurate data regarding the Virginia provider population. SSRS provides visibility into this comprehensive provider business and operational data. The standard reports we produce will provide clarity in performance metrics so that business processes can continually be improved. Besides standard reports, SSRS provides a robust ad hoc reporting feature to customize reports for DMAS. Users can configure and run their own reports to analyze a variety of performance measures for the provider management business processes.
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HPE Performance Manager
 HPE infrastructure reporting tools, such as HPE Performance Manager—Web-based analysis and visual representation of performance metrics and trends for applications, services, systems, and networks.
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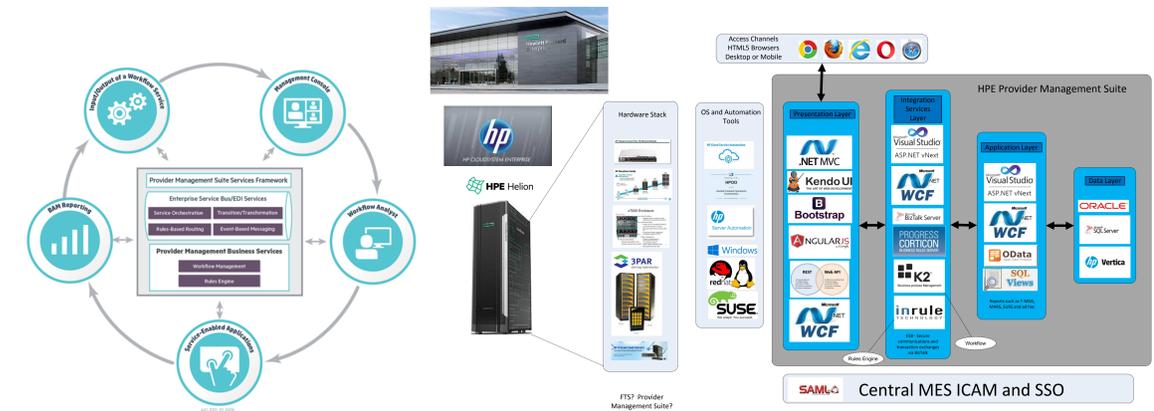
HPE SecureData
 The HPE solution encrypts the database and the other sensitive data within our hosting environment. HPE SecureData supports encryption at rest for the relational database items. We will protect individual sensitive data elements within the database when at rest, in motion, and in use. HPE SecureData can de-identify the PII/PHI. We propose de-identifying data in production so that when it is moved in to other environments it is already protected. The HPE SecureData encryption algorithm is a mode of AES call FFX1. HPE's solution for encrypting the database will meet the requirement for methods used by relational databases to be FIPS-140-2 certified or higher. The HPE SecureData algorithm is NIST-certified and has attained FIPS-140-2 validation. HPE has chosen to use HPE SecureData as the encryption option. This product offers a higher level of protection for the MES PRSS environments without affecting performance. HPE SecureData is NIST-certified, rather than common criteria-certified, and has attained FIPS-140-2 validation.
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Microsoft Lync
 Because we collaborate frequently, we use Microsoft Lync's desktop/application sharing tool and the Lync videoconferencing tool when we meet with people at remote sites. For brief contacts, we use Lync's instant messaging tool.
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GE-QMS
 HPE has experience in various methods of creating architectural artifacts and expertise in a broad range of architecture and design methodologies using industry-recognized best practices. The methodology we follow is Global Engineering Quality Management System (GE QMS) that is based on the International Organization of Standardization (ISO) 9001:2008 quality standard, Capability Maturity Model Integration (CMMI) model, and the IT Infrastructure Library (ITIL) v3 framework
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File Transfer System (FTS)
 The PRSS will exchange files using secure file transfer protocol with other systems through an integration service. After a data exchange window has been decided, the actual exchange can be fully automated using configurable tools for batch control and HPE File Transfer System (FTS) through our ESB. The FTS component in our suite monitors, tracks, logs, and moves files throughout the solution. The FTS portal interface provides full audit tracking of files and notifies users of errors that occur during file transfers. Key features of FTS include the following: Archives transferred files; Renames files; Checks for duplicate files; Compresses and decompresses files; Transfers file using file copy (UNC) FTP, FTPS (SSL technology), and SFTP (SSH technology)
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Provider Portal
 When accepted into the Virginia Medicaid Program, providers will have a robust Provider Portal to access needed information, submit forms, and perform various functions. Our solution empowers providers through self-service capabilities that enable more efficient access to, and more effective use of, relevant information. Our Healthcare Solutions Provider Portal is a secure, regulations-compliant platform, safeguarding Protected Health Information (PHI) and Personally Identifiable Information (PII).
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Integrated Test Facility (ITF) or Capability
 DMAS_PRSS_004 MCSS Prov Serv RFP No 2016-02-Testing Overview.docx
 HPE Product Team Tools:
 Systems Integration Testing Tools: HPE iTRACE; HPE ALM; Unified Functional Test; Load Runner; Running batch cycles; Integrated Test Facility (ITF) or ITF capability;

