

## EXAM DESCRIPTION

### Hitachi Vantara Certified Expert - Pentaho Solutions Architect HCE-3900 Exam

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Description:</b>         | The test will validate that the successful candidate has the knowledge and skills to assess, plan and architect Pentaho solutions that meet the business needs of Hitachi Vantara customers. This test covers how the Pentaho platform integrates into customer environments: the Pentaho server infrastructure, artifacts, security, multi-tenancy, embedding and extending. It also includes the Pentaho User Console, installation in Data Integration and Business Analytics environments including SDR and Big Data (Hadoop, Kerberos, AEL Spark), data management, reporting and monitoring.                                                      |
| <b>Audience:</b>            | <p>Pentaho and Hitachi Vantara customers, partners and employees who architect Pentaho Business Analytics solutions.</p> <p>Pentaho solutions architects examine customer-related data and information to assess requirements from a business perspective and design data integration and analytics solutions that meets the customer's business needs. They define the technical architecture and components of the solution according to solution-design best practices in the context of the client's infrastructure, and in association with implementation personnel, they present and propose deployment and support plans for the solutions.</p> |
| <b>Supporting material:</b> | CCP3745 - Pentaho Solutions Self-Paced Learning Library<br>BA1000 Business Analytics User Console (1-day vILT/ILT)<br>BA2000 Business Analytics Report Designer (2-day vILT/ILT)<br>BA3000 Business Analytics Data Modeling (2-day vILT/ILT)<br>DI1000 Pentaho Data Integration Fundamentals (3-day vILT/ILT)<br>AD1000 Installation and Administration (2-day vILT/ILT)<br>SP1000 Support and Troubleshooting (1-day vILT/ILT)<br>SA1000 Pentaho Security Fundamentals (2-day vILT/ILT)<br>SA2000 Embedding Pentaho (2-day vILT/ILT)                                                                                                                   |
| <b>Exam type:</b>           | Certification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Format:</b>              | Proctored, closed-book exam                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Credential:</b>          | Hitachi Vantara Certified Expert - Pentaho solutions architect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Delivery:</b>            | The exam is available through the <a href="#">Kryterion Webassessor</a> system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Questions:</b>           | 60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Passing score:</b>       | 63%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Duration:</b>            | 90 minutes; 120 minutes for non-English-speaking countries                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Cost:</b>                | US\$225 or equivalent in local currency (plus local tax, depending on location)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

### Test Objectives

| Section 1 | Infrastructure                                                                                                      |
|-----------|---------------------------------------------------------------------------------------------------------------------|
| 1.1       | Demonstrate how the Pentaho platform is implemented in high-availability (HA) data integration (DI) environments.   |
| 1.2       | Demonstrate how the Pentaho platform is implemented in high-availability (HA) business analytics (BA) environments. |
| 1.3       | Demonstrate knowledge of how to manage Pentaho artifacts.                                                           |
| 1.4       | Demonstrate knowledge of Big Data solution architectures.                                                           |
| Section 2 | Security                                                                                                            |

|                  |                                                                                                              |
|------------------|--------------------------------------------------------------------------------------------------------------|
| 2.1              | Demonstrate knowledge of Pentaho's support for multi-tenancy.                                                |
| 2.2              | Describe how to integrate the Pentaho security model with other enterprise security systems.                 |
| 2.3              | Demonstrate knowledge of how to extend Pentaho server content security.                                      |
| 2.4              | Describe how to secure access to customer data within Pentaho.                                               |
| 2.5              | Describe how Pentaho integrates with Big Data security.                                                      |
| <b>Section 3</b> | <b>Embedding and Extending</b>                                                                               |
| 3.1              | Demonstrate knowledge of how to customize the Pentaho User Console (PUC).                                    |
| 3.2              | Demonstrate knowledge of accessing data from the Pentaho server.                                             |
| 3.3              | Demonstrate knowledge of Pentaho REST APIs.                                                                  |
| 3.4              | Demonstrate knowledge of extending Pentaho Analyzer functionality.                                           |
| 3.5              | Demonstrate knowledge of extending the capabilities of Pentaho Report Designer (PRD).                        |
| 3.6              | Demonstrate knowledge of the methods used for embedding Pentaho server reports.                              |
| 3.7              | Demonstrate knowledge of other ways to extend the Pentaho server capabilities.                               |
| <b>Section 4</b> | <b>Data Architecture</b>                                                                                     |
| 4.1              | Demonstrate knowledge of how to design data models for reporting.                                            |
| 4.2              | Describe how predictive analytics are implemented in Pentaho.                                                |
| 4.3              | Demonstrate knowledge of how to design on-demand models for a customer using Streamline Data Refinery (SDR). |
| 4.4              | Demonstrate knowledge of how to manage Big Data using Pentaho.                                               |
| <b>Section 5</b> | <b>Reporting</b>                                                                                             |
| 5.1              | Demonstrate knowledge of the appropriate reporting tools used to satisfy design requirements.                |
| 5.2              | Describe localization of components in Pentaho.                                                              |
| 5.3              | Demonstrate knowledge of report performance tuning and troubleshooting.                                      |
| <b>Section 6</b> | <b>Monitoring</b>                                                                                            |
| 6.1              | Describe the auditing capabilities of Pentaho.                                                               |
| 6.2              | Describe the monitoring capabilities of Pentaho                                                              |

## Hitachi Vantara



Corporate Headquarters  
2535 Augustine Drive  
Santa Clara, CA 95054 USA  
[HitachiVantara.com](http://HitachiVantara.com) | [community.HitachiVantara.com](http://community.HitachiVantara.com)

Regional Contact Information  
Americas: 1-800-446-0744  
Global: 1-858-547-4526  
[HitachiVantara.com/contact](http://HitachiVantara.com/contact)

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