



**HTNG Web Services  
Product Specification**

**Version 2011A**

## About HTNG

Hotel Technology Next Generation ("HTNG") is a nonprofit organization with global scope, formed in 2002 to facilitate the development of next-generation, customer-centric technologies to better meet the needs of the global hotel community. HTNG's mission is to provide leadership that will facilitate the creation of one (or more) industry solution set(s) for the lodging industry that:

- Are modeled around the customer and allow for a rich definition and distribution of hotel products, beyond simply sleeping rooms;
- Comprise best-of-breed software components from existing vendors, and enable vendors to collaboratively produce world-class software products encompassing all major areas of technology spending: hotel operations, telecommunications, in-room entertainment, customer information systems, and electronic distribution;
- Properly exploit and leverage a base system architecture that provides integration and interoperability through messaging; and that provides security, redundancy, and high availability;
- Target the needs of hotel companies up to several hundred properties, that are too small to solve the issues themselves;
- Will reduce technology management cost and complexity while improving reliability and scalability; and
- Can be deployed globally, managed remotely, and outsourced to service providers where needed.

In June 2005, HTNG announced the first-ever "Branding and Certification Program" for hotel technology. This program will enable vendors to certify their products against open HTNG specifications, and to use the "HTNG Certified" logo in their advertising and collateral materials.

It will enable hotels to determine which vendors have completed certification of their products against which specific capabilities, and the environments in which performance is certified. HTNG's vision is to achieve a flexible technical environment that will allow multiple vendors' systems to interoperate and that will facilitate vendor alliances and the consolidation of applications, in order to provide hotels with easily managed, continually evolving, cost-effective solutions to meet their complete technology needs on a global basis.

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# 1 Introduction

This document defines the Hotel Technology Next Generation (“HTNG”) Product Specification for all HTNG Web Service-based technical specifications.

The following HTNG documents are referenced in this document and can be found at <http://collaboration.htng.org/specs/> :

1. HTNG Distribution Content Management Specifications 2009B
2. HTNG Guest & Room Status Messaging Specifications 2010B
3. HTNG Kiosk Integration Specifications 2010B
4. HTNG Open Data eXchange Query Specification 2010B
5. HTNG Payment Systems & Data Security Specifications 2010A, Data Proxy Specification V1.1
6. HTNG Payment Systems & Data Security Specifications 2010B, Payment Processing Specification V2.0
7. HTNG Product Distribution Specifications 2010B
8. HTNG Property Web Services Specifications 2009B
9. HTNG Protocol & Message Transport Specification 2011A, Event Notification Specification V1.0

The following ancillary documents are also referenced in some of the technical specifications:

1. WS-I Basic Profile 1.0 – available at <http://www.ws-i.org>
2. WS-Security 1.0 Specification – available at <http://www.ws-i.org>
3. WS-Addressing 1.0, Core W3C Working Draft, 2006-05-09 – available at [www.w3.org/TR/2006/REC-ws-addr-core-20060509](http://www.w3.org/TR/2006/REC-ws-addr-core-20060509)
4. PCI Data Security Standard – available at [https://www.pcisecuritystandards.org/security\\_standards/pci\\_dss.shtml](https://www.pcisecuritystandards.org/security_standards/pci_dss.shtml)
5. OpenTravel Alliance Specifications – available at <http://www.opentravel.org>

## 2 Product Standard

### 2.1 Name

HTNG Web Services

### 2.2 Label for "HTNG Certified" Certification Logo

HTNG Web Services 2011A

When the "HTNG Certified" certification logo, along with this label, is used on, or in relation to, a product registered as conformant to this Product Specification, it must be accompanied by an attribution in the form defined in the HTNG Certification Program Trademark License Agreement.

### 2.3 Description

This Product Specification references all HTNG Web Service-based technical specifications that are part of the HTNG Certification Program and describes the externally observable behavior of a given product. The detailed requirements to achieve conformance are outlined below.

### 2.4 Conformance Requirements

This Product Specification requires conformance to at least one of the following specifications:

1. HTNG Distribution Content Management Specifications 2009B – Version 1.0
2. HTNG Kiosk Integration Specifications 2010B – Version 2.0
3. HTNG Payment Systems & Data Security Specifications 2010A, Data Proxy Specification V1.1
4. HTNG Payment Systems & Data Security Specifications 2010B, Payment Processing Specification V2.0
5. HTNG Product Distribution Specifications 2010B – Part 1: Reservations, Version 2.4
6. HTNG Product Distribution Specifications 2010B – Part 2: Availability, Version 2.2
7. HTNG Product Distribution Specifications 2010B – Part 3: Statistics, Version 2.0
8. HTNG Product Distribution Specifications 2010B – Part 4: Groups, Version 1.2
9. HTNG Product Distribution Specifications 2010B – Part 5: Rates, Version 1.2
10. HTNG Product Distribution Specifications 2010B – Part 6: Inventory, Version 1.0
11. HTNG Product Distribution Specifications 2010B – Part 7: Seamless Shop/Book, Version 1.1
12. HTNG Property Web Services Specifications 2009B – Part 1: Web Services Framework Version 2.1.1
13. HTNG Property Web Services Specifications 2009B – Part 5: Back Office Integration Version 2.0

In addition, the following specifications require conformance to the Web Services Framework Version 2.1.1 specification:

1. HTNG Guest & Room Status Messaging Specifications 2010B – Version 1.1
2. HTNG Open Data eXchange Query Specification 2010B – Version 1.0
3. HTNG Property Web Services Specifications 2009B – Part 2: Single Guest Itinerary Version 2.2.1
4. HTNG Property Web Services Specifications 2009B – Part 3: Digital Signage Version 1.0
5. HTNG Property Web Services Specifications 2009B – Part 4: Open Data eXchange Basic Version 1.4.2
6. HTNG Property Web Services Specifications 2009B – Part 6: Guest Self Service Version 1.0.3
7. HTNG Property Web Services Specifications 2009B – Part 7: Food and Beverage Ordering Version 1.0
8. HTNG Protocol & Message Transport Specifications 2011A, Event Notification Specification V1.0

The above documents are all available at <http://collaboration.htng.org/specs/>.

#### 2.4.1 HTNG Distribution Content Management Specifications 2009B – Version 1.0

The Distribution Content Management specification defines roles:

Publisher  
Subscriber

Conformance to the Distribution Content Management technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

#### 2.4.2 HTNG Kiosk Integration Specifications 2010B – Version 2.0

The Kiosk Integration specification defines roles:

Kiosk Application  
PMS Application

Conformance to the Kiosk Integration technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.3 HTNG Payment Systems & Data Security Specifications 2010A, Data Proxy Specification V1.1**

The Data Proxy technical specification defines roles:

Business Logic System  
Proxy Vault

Conformance to the Data Proxy technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.4 HTNG Payment Systems & Data Security Specifications 2010B, Payment Processing Specification V2.0**

The Payment Processing specification defines roles:

Business Logic System  
Payment Processing System

Conformance to the Payment Processing technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.5 HTNG Product Distribution Specifications 2010B – Part 1: Reservations, Version 2.4**

The Product Distribution technical specification defines roles:

Reservation Broker  
Reservation Server

Conformance to the Product Distribution technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.6 HTNG Product Distribution Specifications 2010B – Part 2: Availability, Version 2.2**

The Product Distribution technical specification defines roles:

Reservation Broker  
Reservation Server  
Control System

Conformance to the Product Distribution technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.7 HTNG Product Distribution Specifications 2010B – Part 3: Statistics, Version 2.0**

The Product Distribution technical specification defines roles:

Reservation Broker  
Reservation Server  
Control System

Conformance to the Product Distribution technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.8 HTNG Product Distribution Specifications 2010B – Part 4: Groups, Version 1.2**

The Product Distribution technical specification defines roles:

Reservation Broker  
Reservation Server  
Control System

Conformance to the Product Distribution technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.9 HTNG Product Distribution Specifications 2010B – Part 5: Rates, Version 1.2**

The Product Distribution technical specification defines roles:

Reservation Broker  
Reservation Server  
Control System

Conformance to the Product Distribution technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

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**2.4.10 HTNG Product Distribution Specifications 2010B – Part 6: Inventory, Version 1.0**

The Product Distribution technical specification defines roles:

Reservation Broker  
Reservation Server

Conformance to the Product Distribution technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.11 HTNG Product Distribution Specifications 2010B – Part 7: Seamless Shop/Book, Version 1.1**

The Product Distribution technical specification defines roles:

Reservation Broker  
Reservation Server

Conformance to the Product Distribution technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.12 HTNG Property Web Services Specifications 2009B – Part 1: Web Services Framework Version 2.1.1**

Conformance to the Web Services Framework Version 2.1.1 technical specification requires the implementation of all mandatory features. Optional features must be documented if implemented.

The list of HTNG Web Services technical specifications that may be referenced to demonstrate conformance can be found here:

<http://collaboration.htng.org/specs/>.

The HTNG specified Web Services and proprietary services must be identified and evidence of a successful implementation must be provided in one of three ways:

1. By identifying another implementation with which the product has successfully interoperated.
2. By providing a report of successful internal testing.
3. By providing other evidence of a successful implementation.

At least one Web Service must be cited. Details of proprietary systems cited must be provided.

For each Web Service supported, up to six possible supporting documents may be provided, three of which are mandatory. For HTNG specified services, a fourth document is mandatory – a reference to the HTNG specification.

The communication styles supported must be documented. At least one of the communications styles listed must be supported

**2.4.13 HTNG Property Web Services Specifications 2009B – Part 5: Back Office Integration Version 2.0**

The Back Office Integration specification defines roles:

Accounting System  
Budgeting System  
Revenue Capturing System

Conformance to the Back Office Integration technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.14 HTNG Guest & Room Status Messaging Specifications 2010B – Version 1.1**

The Guest & Room Status Messaging specification defines roles:

Room Stay Information Provider  
Room Stay Information Consumer

Conformance to the Guest & Room Status Messaging technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

**2.4.15 HTNG Open Data eXchange Query Specification 2010B – Version 1.0**

The Open Data eXchange Query specification defines roles:

Requesting System  
Provider System

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Conformance to the Open Data eXchange Query technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

#### **2.4.16 HTNG Property Web Services Specifications 2009B – Part 2: Single Guest Itinerary Version 2.2.1**

The Single Guest Itinerary specification defines roles:

- Activity Reservation System
- Accommodation Reservation System
- Posting System
- Folio System
- Customer Profile System
- Itinerary Consolidation System
- Itinerary Display System

Conformance to the Single Guest Itinerary technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

#### **2.4.17 HTNG Property Web Services Specifications 2009B – Part 3: Digital Signage Version 1.0**

The Digital Signage specification defines roles:

- Event Information Display Manager
- Event and Meeting Space Manager

Conformance to the Digital Signage technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

#### **2.4.18 HTNG Property Web Services Specifications 2009B – Part 4: Open Data eXchange Basic Version 1.4.2**

The Open Data eXchange Basic specification defines roles:

- Data Receiver
- Data Sender

Conformance to the Open Data eXchange technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

#### **2.4.19 HTNG Property Web Services Specifications 2009B – Part 6: Guest Self Service Version 1.0.3**

The Guest Self Service specification defines roles:

- Self Service Frontend
- Services Scheduling System

Conformance to the Guest Self Service technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

#### **2.4.20 HTNG Property Web Services Specifications 2009B – Part 7: Food and Beverage Ordering Version 1.0**

The Food and Beverage Ordering specification defines roles:

- Device (Kiosk, Touch Screen, In-Room TV, IP Phone, etc)
- Food and Beverage POS System

Conformance to the Food and Beverage Ordering technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

#### **2.4.21 HTNG Protocol & Message Transport Specifications 2011A, Event Notification Specification V1.0**

The Event Notification Specification defines roles:

- Event Producer
- Event Consumer

Conformance to the Event Notification technical specification requires the support of at least one role, and all of the mandatory functions and messages appropriate to each role supported. All optional functions and messages must be documented.

## 2.5 Portability Environment

Not applicable.

## 2.6 Overriding Standards

None.

## 2.7 Indicators of Compliance

### 2.7.1 HTNG Property Web Services Specifications 2009B – Part 1: Web Services Framework Version 2.1.1

Interoperability must be demonstrated by providing one of the following:

1. The name of other companies with whom you have successfully interoperated.
2. A test report from internal testing. These can be either a URL on your own website or as inline text.
3. Other evidence of a successful implementation.

## 2.8 Migration

The following technical specifications are unchanged from previous versions and will present no migration issues:

- HTNG Distribution Content Management Specifications 2009B, Version 1.0
- HTNG Guest & Room Status Messaging Specifications 2010B – Version 1.1
- HTNG Kiosk Integration Specifications 2010B – Version 2.0
- HTNG Open Data eXchange Query Specification 2010B – Version 1.0
- HTNG Payment Systems & Data Security Specifications 2010A, Data Proxy Specification V1.1
- HTNG Payment Systems & Data Security Specifications 2010B, Payment Processing Specification V2.0
- HTNG Product Distribution Specifications 2010B – Part 1: Reservations, Version 2.4
- HTNG Product Distribution Specifications 2010B – Part 2: Availability, Version 2.2
- HTNG Product Distribution Specifications 2010B – Part 3: Statistics, Version 2.0
- HTNG Product Distribution Specifications 2010B – Part 4: Groups, Version 1.2
- HTNG Product Distribution Specifications 2010B – Part 5: Rates, Version 1.2
- HTNG Product Distribution Specifications 2010B – Part 6: Inventory, Version 1.0
- HTNG Product Distribution Specifications 2010B – Part 7: Seamless Shop/Book, Version 1.1
- HTNG Property Web Services Specifications Version 2009B – Part 1: Web Services Framework Version 2.1.1
- HTNG Property Web Services Specifications Version 2009B – Part 2: Single Guest Itinerary Version 2.2.1
- HTNG Property Web Services Specifications Version 2009B – Part 3: Digital Signage Version 1.0
- HTNG Property Web Services Specifications Version 2009B – Part 4: Open Data eXchange Basic Version 1.4.2
- HTNG Property Web Services Specifications Version 2009B – Part 5: Back Office Integration Version 2.0
- HTNG Property Web Services Specifications Version 2009B – Part 6: Guest Self Service Version 1.0.3
- HTNG Property Web Services Specifications Version 2009B – Part 7: Food and Beverage Ordering Version 1.0

The following technical specifications are modified from the previous release. Possible migration issues are described below.

### 2.8.1 HTNG Protocol & Message Transport Specifications 2011A, Event Notification Specification V1.0

In order to implement the Event Notification Specification V1.0, WSDL modifications may be necessary as a new SOAP header block (HTNG\_EventNotificationHeader) is required to consume events.