

# HX Platform Grade of Service



**June 2011**

## Grades of Service at a glance

The following table (**Figure 1**) highlights the various Grades of Service that are available on the BENTLEY HX™ Service. It enables people to easily identify the desired Grade of Service. After it has been decided to use a particular Grade of Service, it is recommended that you proceed to the detailed sections on the following pages to read in detail what is supported on your chosen Grade of Service and what is not.

Grade of Service	Downstream (1)	Upstream (2)
HX Legacy 500	512Kbps	128Kbps
HX Legacy 1000	1024Kbps	128Kbps
HX Legacy 2000	2048Kbps	128Kbps
HX Consumer	512Kbps	128Kbps
HX Connect	512Kbps	128Kbps
HX SOHO500	512Kbps	128Kbps
HX SOHO500Plus	512Kbps	256Kbps
HX SOHO500Prem	512Kbps	512Kbps
HX BusinessPlus	1024Kbps	256Kbps
HX BusinessPrem	1024Kbps	512Kbps
HX CorporatePlus	2048Kbps	256Kbps
HX CorporatePrem	2048Kbps	512Kbps
HX Eclipse3000Plus	3072Kbps	256Kbps
HX Eclipse3000Prem	3072Kbps	512Kbps
HX Dual 2000	2048Kbps	1024Kbps
HX Dual 4000	4096Kbps	1024Kbps

Figure 1

(1) **Download Speed** - This is the headline maximum speed the download will burst to. It is measured in Kilo Bits per Second.

(2) **Upload Speed** - This is the headline maximum speed the upload will burst to. It is measured in Kilo Bits per Second.

(3) The efficiency on a **S2 ACM** network is dependent on customers satellite dish being optimised for the best signal both on receive and transmit. Bentley Walker reserve the right to reduce the GOS speeds where a unit is found to transmitting or receiving at non optimum values due to poor alignment.

(4) "Off Peak" hours are defined as **8 PM GMT – 8 AM GMT**

# BENTLEY HX™ Legacy 500 (N/A T11)

## Description

This is the normal Grade of Service for office users who occasionally download large files or send e-mail with small attachments. This Grade of Service is aimed at people who want a Small Office/Home Office type Internet service. Users can have up to 5 PC's active... the speed per host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- Streaming or real time applications. (Subject to throttling based on usage. See \*(note2))

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form) Typical System Performance

Typically end-users on a Legacy 500 Grade of Service can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	512 Kbps	512 Kbps
	Non-Contended Throughput**	256 Kbps	300 Kbps
E-Mail Upload	Minimum Burst	16 Kbps	16 Kbps
	Headline Burst Rate	120 Kbps	256 Kbps
	Non-Contended Throughput**	60 Kbps	60 Kbps

• **(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ HUB with a single PC attached via crossover . These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

• **(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ Legacy 1000 (N/A T11)

## Description

This is the normal Grade of Service for office users who occasionally download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a Small Office/ Home Office type Internet service. Users can have up to 5 PC's active.. the speed per host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- VOIP
- Any other streaming or real time applications. (Subject to throttling based on usage. See \*(note2))

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form) Typical System Performance

Typically end-users on a Legacy 1000 can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	600 Kbps	1024 Kbps
	Non-Contended Throughput**	512 Kbps	600 Kbps
E-Mail Upload	Minimum Burst	16 Kbps	16 Kbps
	Headline Burst Rate	120 Kbps	256 Kbps
	Non-Contended Throughput**	60 Kbps	60 Kbps

• **(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attached via crossover . These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

• **(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ Legacy 2000 (N/A T11)

## Description

This is the normal Grade of Service for office users who regularly download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a Small Office/ Home Office type Internet service. Users can have up to 13 PC's active... the speed per host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- VOIP
- Any other streaming or real time applications. (Subject to throttling based on usage. See \*(note2))

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form) Typical System Performance

Typically end-users on a Legacy 2000 can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	1200 Kbps	2048 Kbps
	Non-Contended Throughput**	900 Kbps	1200 Kbps
E-Mail Upload	Minimum Burst	16 Kbps	16 Kbps
	Headline Burst Rate	120 Kbps	512 Kbps
	Non-Contended Throughput**	60 Kbps	120 Kbps

• **(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attached via crossover . These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

• **(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ Consumer

## Description

This is an entry level Grade of Service for home users who very occasionally download small files or send e-mail with normal < 1Mb attachments. This Grade of Service is aimed at people who want a Home type Internet service. Users can only have 1 PC active.

Only the following protocols will be allowed:

- HTTP Web Browsing
- Web based e-mail
- POP3/SMTP Client e-mails with small attachments
- DNS queries
- MSN & Yahoo Messenger Chat
- HTTPS/ SSL
- No Public IP Addresses available

## Typical System Performance

Typically end-users on a HX Consumer Grade of Service can expect the following speeds

**\*(note1)**

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	300 Kbps	300 Kbps
	Non-Contended Throughput**	250 Kbps	250 Kbps
E-Mail Upload	Minimum Burst	16 Kbps	16 Kbps
	Headline Burst Rate	30 Kbps	128 Kbps
	Non-Contended Throughput**	25 Kbps	25 Kbps

• **(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX hub with a single PC attached via crossover . These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

• **(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ Connect

## Description

This is the normal Grade of Service for office users who occasionally download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a Small Office/ Home Office type Internet service. Users can have up to 3 PC's active... the speed per host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form)

## Typical System Performance

Typically end-users on an HX Connect package can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	300 Kbps	512 Kbps
	Non-Contended Throughput**	300 Kbps	300 Kbps
E-Mail Upload	Minimum Burst	16 Kbps	25 Kbps
	Headline Burst Rate	50 Kbps	128 Kbps
	Non-Contended Throughput**	30 Kbps	30 Kbps

• **(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the Bentley HX hub with a single PC attached via crossover . These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

• **(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the Bentley HX network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ SOHO 500

## Description

This is the normal Grade of Service for office users who occasionally download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a Small Office/ Home Office type Internet service. Users can have up to 5 PC's active... the speed per host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form)

## Typical System Performance

Typically end-users on a SOHO 500 can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	300 Kbps	512 Kbps
	Non-Contended Throughput**	300 Kbps	300 Kbps
E-Mail Upload	Minimum Burst	16 Kbps	16 Kbps
	Headline Burst Rate	128 Kbps	128 Kbps
	Non-Contended Throughput**	30 Kbps	30 Kbps

• **(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attached via crossover . These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

• **(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ SOHO 500 Plus

## Description

This is the normal Grade of Service for office users who occasionally download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a Small Office/ Home Office type Internet service. Users can have up to 5 PC's active... the speed per host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- VOIP

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form)

## Typical System Performance

Typically end-users on a SOHO 500 Plus can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	300 Kbps	512 Kbps
	Non-Contended Throughput**	300 Kbps	300 Kbps
E-Mail Upload	Minimum Burst	30 Kbps	30 Kbps
	Headline Burst Rate	256 Kbps	256 Kbps
	Non-Contended Throughput**	60 Kbps	60 Kbps

•**(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attached via crossover. These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

•**(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ SOHO 500 Premium

## Description

This is the normal Grade of Service for office users who occasionally download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a Small Office/ Home Office type Internet service. Users can have up to 5 PC's active... the speed per host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- VOIP

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form)

## Typical System Performance

Typically end-users on an SOHO 500 Premium can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	300 Kbps	512 Kbps
	Non-Contended Throughput**	300 Kbps	300 Kbps
E-Mail Upload	Minimum Burst	40 Kbps	40 Kbps
	Headline Burst Rate	256 Kbps	512 Kbps
	Non-Contended Throughput**	120 Kbps	120 Kbps

•**(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attached via crossover . These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

•**(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ Business 1000 Plus

## Description

This is the normal Grade of Service for office users who occasionally download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a Small Office/ Home Office type Internet service. Users can have up to 12 PC's active... the speed per host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- VOIP

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form)

## Typical System Performance

Typically end-users on a Business 1000 Plus can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	600 Kbps	1024 Kbps
	Non-Contended Throughput**	512 Kbps	600 Kbps
E-Mail Upload	Minimum Burst	30 Kbps	30 Kbps
	Headline Burst Rate	120 Kbps	256 Kbps
	Non-Contended Throughput**	60 Kbps	80 Kbps

•**(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attached via crossover . These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

•**(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ Business 1000 Premium

## Description

This is the normal Grade of Service for office users who regularly download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a Small Office/ Home Office type Internet service. Users can have up to 13 PC's active... the speed per active host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- VOIP

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form)

## Typical System Performance

Typically end-users on a Business 1000 Premium can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	600 Kbps	1024 Kbps
	Non-Contended Throughput**	512 Kbps	600 Kbps
E-Mail Upload	Minimum Burst	40 Kbps	40 Kbps
	Headline Burst Rate	120 Kbps	512 Kbps
	Non-Contended Throughput**	120 Kbps	140 Kbps

•**(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attaché via crossover . These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

•**(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ Corporate 2000 Plus

## Description

This is the normal Grade of Service for office users who download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a Small Office/ Home Office type Internet service. Users can have up to 12 PC's active... the speed per active host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- VOIP

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form)

## Typical System Performance

Typically end-users on a Corporate 2000 Plus can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	1200 Kbps	2048 Kbps
	Non-Contended Throughput**	900 Kbps	1200 Kbps
E-Mail Upload	Minimum Burst	30 Kbps	30 Kbps
	Headline Burst Rate	120 Kbps	256 Kbps
	Non-Contended Throughput**	60 Kbps	80 kbps

•**(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attached via crossover . These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

•**(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ Corporate 2000 Premium

## Description

This is the normal Grade of Service for office users who download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a corporate type Internet service. Users can have up to 13 PC's active... the speed per active host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- VOIP

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form)

## Typical System Performance

Typically end-users on a Corporate 2000 Premium can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	64 Kbps	64 Kbps
	Headline Burst Rate	1200 Kbps	2048 Kbps
	Non-Contended Throughput**	900 Kbps	1200 Kbps
E-Mail Upload	Minimum Burst	40 Kbps	40 Kbps
	Headline Burst Rate	120 Kbps	512 Kbps
	Non-Contended Throughput**	120 Kbps	140 Kbps

•**(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attached via crossover. These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

•**(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ Eclipse 3000 Plus

## Description

This is an enhanced Grade of Service for office users who download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a corporate type Internet service. Users can have up to 13 PC's active... the speed per active host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- VOIP

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form)

## Typical System Performance

Typically end-users on the Eclipse 3000 Plus can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	350 Kbps	350 Kbps
	Headline Burst Rate	3072 Kbps	3072 Kbps
	Non-Contended Throughput**	2048 Kbps	2300 Kbps
E-Mail Upload	Minimum Burst	40 Kbps	40 Kbps
	Headline Burst Rate	120 Kbps	256 Kbps
	Non-Contended Throughput**	60 Kbps	80 Kbps

•**(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attached via crossover. These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

•**(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

# BENTLEY HX™ Eclipse 3000 Premium

## Description

This is an enhanced Grade of Service for office users who download large files or send e-mail with attachments. This Grade of Service is aimed at people who want a corporate type Internet service. Users can have up to 13 PC's active... the speed per active host will be a division of the site available bandwidth.

This Grade of Service will support the following applications:

- Web Browsing
- Web based e-mail
- Client / Server e-mails with attachments
- DNS queries
- FTP Server access
- VOIP

Users will be provided access to the following value added services:

- Public IP Addresses (upon submission of RIPE application form)

## Typical System Performance

Typically end-users on the Eclipse 3000 Premium can expect the following speeds \*(note1)

		Peak Hours	Off-Peak Hours
FTP Download	Minimum Burst	350 Kbps	350 Kbps
	Headline Burst Rate	3072 Kbps	3072 Kbps
	Non-Contended Throughput**	2048 Kbps	2300 Kbps
E-Mail Upload	Minimum Burst	40 Kbps	40 Kbps
	Headline Burst Rate	120 Kbps	512 Kbps
	Non-Contended Throughput**	120 Kbps	140 Kbps

•**(note1)** these figures are based on un-throttled speeds measured to and from the Servers located in the BENTLEY HX™ hub with a single PC attached via crossover. These figures do not apply to any servers located on remote satellite terminals, or servers located on the Internet as these are beyond the reasonable control of Bentley Walker.

•**(note2)** Any applications that stream information, or are capable of slowing overall network performance, may be subject to throttling in accordance with the Internet Acceptable Use policy, this is to ensure fair access to the BENTLEY HX™ network.

\*\*Bentley Walker will strive to achieve this throughput on the modem, however; due to contention of the package the performance may vary to minimum to headline burst.

## **BENTLEY HX™ Dual 2000**

Users should expect the Grade of Service of the Business 1000 Prem per HX™ terminal (including FAP); the aggregate bandwidth should be 2 x the Business 1000 Prem Grade of Service, please refer to the Business 1000 Prem for full details.

## **BENTLEY HX™ Dual 4000**

Users should expect the Grade of Service of the Corporate 2000 Prem per HX™ terminal (including FAP); the aggregate bandwidth should be 2 x the Corporate 2000 Prem Grade of Service, please refer to the Corporate 2000 Prem for full details.

## **HX™ FAP FREE SERVICES**

Bentley Walker Guarantee the minimum 10:1 contended throughputs; this service is truly unlimited with no FAP mechanism in place.

<b>Grade of Service</b>	<b>Downstream</b>	<b>Upstream</b>
512/128	10:1	10:1
1024/256	10:1	10:1
2048/256	10:1	10:1

Figure 2

# Internet Acceptable Use Policy

## PURPOSE

The purpose of this Internet Acceptable Use Policy is to inform all users of the Bentley HX™ Service as to what is considered acceptable use and what is regarded as inappropriate.

## SCOPE

All personnel with access to the Internet through any part of the Bentley HX™ infrastructure, whether they are a customer, an employee or a licensed distributor, are bound by this policy.

## POLICY

This Acceptable Use Policy specifies the actions prohibited by Bentley Walker, to users of the Bentley HX Network. Users may be defined as "any customer or distributor who uses or accesses the Bentley HX™ Network Infrastructure or the Internet through the Bentley HX Network". Bentley Walker reserves the right to modify this Policy at any time, effective upon posting of the modified Policy to the Bentley Walker website. Any modifications to this Policy will be made when Bentley Walker feels it is appropriate, and it is the user's responsibility to ensure their awareness of any such changes.

## ILLEGAL USE

The Bentley HX™ Network may be used only for lawful purposes. Transmission, distribution or storage of any material in violation of any applicable law or regulation is prohibited. This includes, without limitation, material protected by copyright, trademark, trade secret or intellectual property right used without proper authorization, and material that is obscene, defamatory, constitutes an illegal threat, has a racist theme, or violates export control laws.

## THE NETWORK

- a)** The user acknowledges that Bentley Walker is unable to exercise control over the content of the information passing over the Bentley HX™ Network. Therefore, Bentley Walker is not responsible for the content of any message, whether or not the posting was made by a customer of Bentley Walker or one of its licensed distributors.
- b)** The Bentley HX™ Network may be used to link into other networks worldwide and the user agrees to conform to the Acceptable Use Policies of these networks. In addition the user undertakes to conform to the Internet protocols and standards.
- c)** The user may not circumvent user authentication or security of any host, network, or account (referred to as "cracking" or "hacking"), nor interfere with service to any user, host, or network (referred to as "denial of service attacks") provided by, or on behalf of Bentley Walker.
- d)** Without prejudice to the foregoing, Bentley Walker consider that any application that overloads the Bentley HX™ Network by whatever means will be considered as making profligate use of the Bentley HX™ Network and is as such **NOT** allowed. This will also apply to applications that the end user may not be aware of, such as viruses and worms.

**e)** The usage of any streaming or real-time applications will be actively monitored and anyone making excessive use of the network capacity will have the application throughput speed reduced, so as not to reduce the overall performance of the Bentley HX™ System. This will also be applicable to Peer to Peer file sharing applications.

**f)** Use of IP multicast or broadcast services are likewise prohibited.

**g)** Users who violate systems or network security may incur criminal or civil liability. Bentley Walker will fully co-operate with investigations of suspected criminal violations, violation of systems or network security under the leadership of law enforcement or relevant authorities.

**h)** Bentley Walker reserves the right to monitor the network for traffic that violates this policy. If any infringement is recognized to be the responsibility of a user of the Bentley HX™ network, then that user will be removed from the network until such time as the violation has ceased. If an infringement is recognized to have taken place against a user, then Bentley Walker will make a report and forward it to the abuse department of the offending ISP on behalf of the user. Any user who repeatedly violates this policy may have their access to the Bentley HX™ network removed permanently.

**i)** Bentley Walker are unable to guarantee or support applications that are latency sensitive, this is due to the default latency that comes with satellite connectivity, such applications would include online gaming and VoIP applications not optimized for satellite connectivity (Skype, MSN Voice Chat, Yahoo Voice Chat etc).

## **SYSTEM AND NETWORK SECURITY**

Violations of system or network security are prohibited, and may result in criminal and civil liability. Bentley Walker will investigate incidents involving such violations and will involve and will co-operate with law enforcement if a criminal violation is suspected. Examples of system or network security violations include, without limitation, the following:

**a)** Unauthorized access to or use of data, systems or networks, including any attempt to probe, scan or test the vulnerability of a system or network or to breach security or authentication measures without express authorization of the owner of the system or network;

**b)** Unauthorized monitoring of data or traffic on any network or system without express authorization of the owner of the system or network;

**c)** Interference with service to any user, host or network including, without limitation, mail spamming, flooding, deliberate attempts to overload a system and broadcast attacks. This includes other Bentley HX™ users;

**d)** Forging of any TCP-IP packet header or any part of the header information in an email or a newsgroup posting. If approached with complaints relating to any of the above violations, Bentley Walker will co-operate and assist the Police and law enforcing bodies with their investigations in order to bring such misuse and violations to an end.

## **VIRUSES AND WORMS**

Bentley Walker will proactively monitor the Bentley HX™ network for signs of virus or worm activity. In the event that an infection is located then the originating system will be removed from the Bentley HX™ network, until such time as Bentley Walker is informed that the virus or worm has been eradicated. Bentley Walker will endeavour to provide as much notice of the removal of a system as possible. Bentley Walker reserves the right to remove any unit without notice if there is any possibility that the virus or worm infection may spread to other Bentley HX™ users.

### **E-MAIL**

**a)** It is explicitly prohibited to send unsolicited bulk mail messages ("junk mail" or "spam") of any kind (commercial advertising, political tracts, announcements) etc. Any terminal found to be transmitting SPAM will be disabled.

**b)** It is also explicitly prohibited to allow others to send unsolicited bulk mail messages either directly or by relaying through the Users systems. For the avoidance of doubt, users must ensure that their systems cannot be relayed through. Users may not forward or propagate chain letters or malicious email.

**c)** A User may not solicit mail for any other address other than that of the user, except with full consent of the owner of the referred address.

### **ENFORCEMENT**

Any customer of Bentley Walker or one of its licensed distributors found to have violated this policy may have the service revoked for the offending user. In the case of a remote site on the Bentley HX™ network violating this policy then the site will be disabled until such a time as the offending user or machine ceases in its unacceptable behaviour. No service monies will be returned if an account violates any of the above

# Bentley HX Fair Access Policy (FAP)

Bentley HX® system usage data indicates that approximately 10% of subscribers are responsible for a disproportionate share - often as much as half - of the total Bentley HX™ service traffic. Unfortunately, many of those subscribers are not using Bentley HX for its intended purpose.

To ensure that all Bentley HX subscribers have fair and equal access to the benefits of the Satellite broadband service, Bentley Walker Ltd has in place a Bentley HX™ FAP.

The purpose of the FAP is the following:

- To control unfair & excessive usage of bandwidth by a handful of users, whilst ensuring quota rates are in-line with the GOS purchased

FAP is straightforward analysis of usage data; Bentley Walker Ltd has established a Bentley HX usage threshold well above the maximum typical usage rates. When a customer exhibits patterns of system usage that exceed that threshold for an extended period of time, the FAP limits the user to a set level of throughput depending on what tier of the clause has been reached, this is to ensure the integrity of the system for all Bentley HX subscribers.

To ensure fair Internet access for all Bentley HX™ subscribers, Bentley Walker maintains a Fair Access Policy (FAP). This policy ensures the Satellite network remains buoyant and establishes an equitable balance in Internet access for Bentley HX subscribers. Bentley Walker assigns a download and upload threshold to each service plan that limits the amount of data that may be downloaded or uploaded during a typical day. A small percentage of subscribers who exceed this limit will experience a temporary reduction of speed.

## **Explanation:**

Bentley Walker in the past used an 8 hour and 24 hour Fair Access quota system that reset the whole network at certain predetermined times. This was network-centric and didn't really allow for individual terminal usage / working patterns etc.

We have therefore improved and redesigned the Fair Access system the main beneficial changes are as follows.

- The period from 4AM GMT until 2359 GMT is the FAP monitoring period
- The period from 0001 AM GMT until 0400 AM GMT is "FAP FREE"
- There is no longer a level 1 throttle
- The modem will report if it is FAP from its system status button
- Eventually the end -user will be able to access the FAP status of the modem and the amount of data used until that time from an online portal ( this portal will ultimately report historical usage)

## **The new FAP quotas are exactly the same contracted quota per day as the existing Grade of Service**

### **FAP monitoring period**

This is the daily timeframe when the system will "count" the data consumed by the modem. The Fair Access Policy is straightforward. Based on an analysis of customer usage data, Bentley Walker has established a download and upload threshold for each of the Bentley HX service plans that is well above accepted satellite typical usage rates. Subscribers who exceed that threshold will experience reduced download and upload speeds until the NON FAP .The daily quota is reset during this period and the daily count started again. The individual plans are shown at the end of this document.

During the throttle period, the Bentley HX service may still be used, but speeds will be slower. Web browsing; for example, will be significantly slower than subscribers' normal browsing experience. Subscribers will return to normal speeds after the FAP FREE period.

### **FAP FREE period**

In the new system we have incorporated a FAP FREE period. This is a 4 hour window between Midnight and 4am GMT when there is no data count whatsoever. It is an ideal time to set automatic updates, service pack downloads etc.

### **Removal of the Level 1 Throttle**

In the past, the system had a level 1 quota which acted as mid time period throttle. This has now been removed and sites can run at Grade of Service speeds throughout the day unless the FAP level has been reached.

Modem reporting;

The modem will report on its current FAP state via the system status button.

The button colours are:

Green = OK

Red = Problem

Yellow = Degraded (system not throughput)

Orange = in hard throttle FAP State.


There is also an extra information box that says "fair access policy yes or no" Customers will be able to click on the Bentley Walker Logo web link on the web interface that will take them to the information portal.

SYSTEM STATUS	
Signal Strength	89
<i>Note: Signal Strength is not an indicator of browsing speed. Precipitation can affect Signal Strength. If you do not see a red flag next to any of the status messages on this page, you should be able to browse the Internet successfully.</i>	
Receive Status	Receiver operational. (RxCode 5)
Transmit Status	Transmitter ready. (TxCode 8)
Software Download Status	All files are up-to-date.
Service Status	Commissioned [Keys updated] [Service History]
TCP Acceleration Status	Operational
Web Acceleration Status	Operational. Upstream Addr: 192.168.5.7
Diagnostics Code	0000-0000-0000-0165(Hourly) 0000-0000-0000-0005(Recent)
Fair Access Policy Threshold Exceeded	YES

This will allow them to enter their serial number and see the currently FAP state and the amount of data measured in that daily FAP monitoring period.


## Historical Portal

Although currently in development it is anticipated that customers will be able to enter their serial number on the FAP portal and have displayed their data usage for a given date. This information will assist site owners/ administrators in determining usage trends or possible unauthorized use of the satellite link. There is also a matrix on the daily allowance for each package.




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Select Date:

03/12/2009

Show Data

Site Id	Start Time	End Time	Total Hourly Connect Minutes	Downloaded Megabytes	Uploaded Megabytes	Minutes in Hard Throttle	Total Megabytes Sent After Compression
BHX10046	06/12/2009 00:00:00	06/12/2009 01:00:00	035	0.01MB	0.01MB	000	0.01MB
BHX10046	06/12/2009 01:00:00	06/12/2009 02:00:00	011	0.00MB	0.00MB	000	0.00MB
BHX10046	06/12/2009 07:00:00	06/12/2009 08:00:00	031	0.07MB	0.01MB	000	0.07MB
BHX10046	06/12/2009 08:00:00	06/12/2009 09:00:00	047	0.93MB	0.06MB	000	0.93MB
BHX10046	06/12/2009 09:00:00	06/12/2009 10:00:00	044	1.55MB	0.11MB	000	1.54MB
BHX10046	06/12/2009 10:00:00	06/12/2009 11:00:00	043	0.04MB	0.04MB	000	0.04MB
BHX10046	06/12/2009 11:00:00	06/12/2009 12:00:00	036	0.01MB	0.01MB	000	0.01MB
BHX10046	06/12/2009 12:00:00	06/12/2009 13:00:00	054	4.52MB	0.13MB	000	4.18MB
BHX10046	06/12/2009 13:00:00	06/12/2009 14:00:00	058	4.17MB	0.26MB	000	4.15MB
BHX10046	06/12/2009 14:00:00	06/12/2009 15:00:00	058	9.39MB	0.45MB	000	9.28MB
BHX10046	06/12/2009 15:00:00	06/12/2009 16:00:00	055	3.53MB	0.18MB	000	3.53MB
BHX10046	06/12/2009 16:00:00	06/12/2009 17:00:00	060	3.29MB	0.26MB	000	3.20MB
BHX10046	06/12/2009 17:00:00	06/12/2009 18:00:00	060	13.89MB	0.27MB	000	13.72MB
BHX10046	06/12/2009 18:00:00	06/12/2009 19:00:00	060	52.77MB	0.37MB	000	52.68MB
BHX10046	06/12/2009 19:00:00	06/12/2009 20:00:00	060	31.84MB	0.36MB	000	31.78MB
BHX10046	06/12/2009 20:00:00	06/12/2009 21:00:00	060	95.33MB	0.78MB	000	94.61MB
BHX10046	06/12/2009 21:00:00	06/12/2009 22:00:00	060	89.21MB	1.07MB	000	88.90MB
BHX10046	06/12/2009 22:00:00	06/12/2009 23:00:00	060	40.59MB	0.55MB	000	39.70MB
BHX10046	06/12/2009 23:00:00	07/12/2009 00:00:00	053	2.49MB	0.14MB	000	2.45MB

## **F.A.P. FAQ's:**

### **Who is affected?**

Only a small percentage of subscribers will experience reduced download speeds as a result of exceeding the download threshold.

Online activities such as viewing Websites, checking email, watching short streaming media presentations, or automatic software and anti-virus updates are unlikely to exceed the download threshold.

### **What activities may cause a subscriber to exceed their download threshold?**

Some activities are more likely to exceed the download threshold and trigger the application of the Fair Access Policy. Several examples are listed below:

1. Full-length movie downloads
2. Peer-to-peer (P2P) file sharing programs such as Napster, Kazaa or LimeWire
3. Continuous downloading or viewing streaming media content such as audio or video programming
4. Hosting of server devices such as email, FTP or Web servers
5. Hosting computer applications such as Web camera feeds
6. Automated computer to computer connections used for archiving of local computer content
7. Extensive downloading of Usenet Newsgroups (NNTP)
8. Use of BitTorrent applications
9. Simultaneous file downloads
10. Downloading large files (i.e., file sizes that are close in size to the download threshold of your service plan)

Excessive downloading or use of the services described above may cause subscribers to be affected by the Fair Access Policy.

### **What will my Internet access be like if I exceed the download threshold?**

When the download threshold is exceeded, you will experience reduced download and upload speeds for remainder of the FAP Monitoring period .During this period, the Bentley HX service can still be used for activities such viewing emails and Web surfing, but speeds will be significantly slower than your normal browsing experience.

### **Why was the FAP FREE Period implemented?**

This period has been provided for Bentley HX subscribers to schedule the downloading of automated updates or download of other large files.

## **Are there any limitations to what I can do during the FREE FAP Download Period?**

Yes:

1. This period is subject to available capacity;
2. Download speeds are not guaranteed during these hours; and
3. The Bentley HX Acceptable Use Policy is still in effect.

## **What do you recommend I do during the Download Period?**

We recommend that you automatically schedule your system updates during the Download Period. We also suggest the use of a download manager software application to assist in the scheduling of large file downloads.

## **Do you recommend a particular download manager?**

While we cannot recommend any at this time, we are currently in the process of testing several download managers for this purpose.

## **Does the new F.A.P. use a recovery rate 'bucket' like other Hughes platforms? :**

No. Other Hughes platforms use a recovery or "sliding window" recovery system. This can mean that unless users stop using the Internet they can slip in and out of FAP on a regular basis. We have designed so the customer knows exactly what the daily limit is and when that quota will be reset.

## **Is the F.A.P. penalty 24-hours, or 1 calendar day? :**

The FAP is from 4am to 2359 GMT. All users in throttle will be returned to normal after 0001 AM

## **What kind of speeds will I see while under F.A.P. restrictions? :**

The individual service plans have their own "hard " throttle limit and whilst in this limit the site will obviously experience slower speeds. As such, it's in your best interest to stay away from hitting the F.A.P. limit.

## **So what exactly triggers the F.A.P. penalty? :**

Transferring an amount of data (whether uploading, downloading, or a combination of the two) that exceeds the limit of your subscription package.

**So why is my plan referred to as "unlimited" if my high-speed access is indeed limited? :**

Bentley Walker guarantees its customers unlimited internet access ... Not unlimited high-speed access.

Daily Allowances and Penalties for Grades of Service

<i>Package</i>	<i>Download</i>	<i>Upload</i>
<b>HX Legacy 500 (NA T11)</b>	<b>512</b>	<b>256</b>
Daily Quota MB	135	45
Penalty Kbps	64	30
<b>HX Legacy 1000 (NA T11)</b>	<b>1024</b>	<b>256</b>
Daily Quota MB	282	45
Penalty Kbps	64	30
<b>HX Legacy 2000 (NA T11)</b>	<b>2048</b>	<b>512</b>
Daily Quota MB	540	45
Penalty Kbps	256	30
<b>HX Consumer</b>	<b>300</b>	<b>128</b>
Daily Quota MB	228	45
Penalty Kbps	64	16
<b>HX Connect</b>	<b>512</b>	<b>128</b>
Daily Quota MB	600	105
Penalty Kbps	64	25
<b>HX SOHO 500</b>	<b>512</b>	<b>128</b>
Daily Quota MB	990	174
Penalty Kbps	64	30

<b>HX SOHO 500 Plus</b>	<b>512</b>	<b>256</b>
Daily Quota MB	990	450
Penalty Kbps	64	30
<b>HX SOHO 500 Premium</b>	<b>512</b>	<b>512</b>
Daily Quota MB	990	891
Penalty Kbps	64	45
<b>HX Business 1000 Plus</b>	<b>1024</b>	<b>256</b>
Daily Quota MB	3570	450
Penalty Kbps	128	30
<b>HX Business 1000 Premium</b>	<b>1024</b>	<b>512</b>
Daily Quota MB	3570	891
Penalty Kbps	128	45
<b>HX Corporate 2000 Plus</b>	<b>2078</b>	<b>256</b>
Daily Quota MB	6600	450
Penalty Kbps	256	30
<b>HX Corporate 2000 Premium</b>	<b>2048</b>	<b>512</b>
Daily Quota MB	6600	891
Penalty Kbps	256	45
<b>Eclipse 3000 Plus</b>	<b>3072</b>	<b>256</b>
Daily Quota MB	8250	450
Penalty Kbps	312	30
<b>Eclipse 3000 Premium</b>	<b>3072</b>	<b>512</b>
Daily Quota MB	8250	891
Penalty Kbps	312	45