

# White Paper

## Broadband Application Consulting

### Table of Content

<p><b>BASELINES ..... 1</b></p> <p>    Why Consulting?.....1</p> <p>    A New Mix of Products and Services.....1</p> <p>    The Sales Process .....2</p> <p>    Knowledge Acquisition and Dissemination...3</p> <p><b>CONSULTING ROADMAPS ..... 5</b></p> <p>    The Four Phases of our Sales Process.....5</p> <p>    Phase 0: Ideation Presentation.....5</p> <p>    Phase I: Value Proposition, Revenue Models, and Roadmaps.....6</p> <p>        Deliverables.....6</p> <p>        The Portfolio Analysis.....8</p> <p>    Phase II: Technology Portfolio Analysis.....8</p> <p>        Deliverables.....8</p> <p>        The Roadmap Portfolio .....9</p> <p>    Phase III: Deployment Support.....9</p> <p>    Pricing..... 10</p>	<p><b>THE BREADCRUMBS..... 11</b></p> <p>    A Trail of Documents.....11</p> <p>        General Documents.....12</p> <p>        White Papers and Briefs .....12</p> <p>        Technology Analysis .....12</p> <p>        Research Pulse.....12</p> <p>        Specs .....12</p> <p>        Consulting Deliverables.....12</p> <p>        Portfolio Analysis.....12</p> <p>        Roadmaps .....13</p> <p>        Deployment Support .....13</p> <p>        Production and Research.....13</p> <p>    Access to Insights.....13</p> <p>        A Research Network.....13</p> <p>        Release Schedules .....13</p> <p>        Copyrights.....14</p> <p>    Contact Management..... 14</p>
--	---

Vs	Date	Author	Main Changes
0.1	04/01/2001	Jürgen Heuer	<i>Initial Document</i>
0.3	07/02/2001	Jürgen Heuer	<i>Details on chapter 2 'Consulting Roadmap'</i>
0.4	22/03/2001	Jürgen Heuer	<i>Details on chapter 3 'The Breadcrumbs'</i>
0.5	21/01/2006	Jürgen Heuer	<i>Removal of pricing and other sensitive info for personal use</i>

## Why Consulting?

Consulting is a new economic offering for Whirlpool Corporation. We have performed activities that are close to this, like research sharing and shop floor support, but never for a dedicated fee. These activities were always related to product sales. *Broadband Application Consulting* **changes this landscape**. It will be performed without a direct link to product sales, and will be charged on an hourly basis.

The profitability of the single consultant is acceptable, however, this offering scales differently than a production facility. The **workforce is the investment**. It requires substantially more ongoing commitment into training etc. to retain the workforce. So, why do we engage in this activity, instead of using a partner like Digital Communities with developed processes and existing staff?

There are three reasons why consulting is not only a good business, but **necessary** to ensure the ongoing success of the Integrated Home Solutions (IHS) offering:

**A) We offer a new mix of products and services.**

Whirlpool as a provider of goods and services beyond the traditional white goods is a story that has to be told in the proper way, to the right people, using the right script.

**B) The real-estate developer has a different sales process than retail.**

Our traditional sales channel can be used in only a limited way to address our customers. As white-goods manufacturers, we are typically engaged on the backend of the real-estate development process, talking to procurement staff, and removed from strategic marketing and sales activities.

**C) Knowledge has a faster expiration time than products.**

Consulting works as a two-way communication vehicle. As much knowledge as we share, we gain by listening to the decision-makers in our customer base, and by conducting extensive research.

## A New Mix of Products and Services

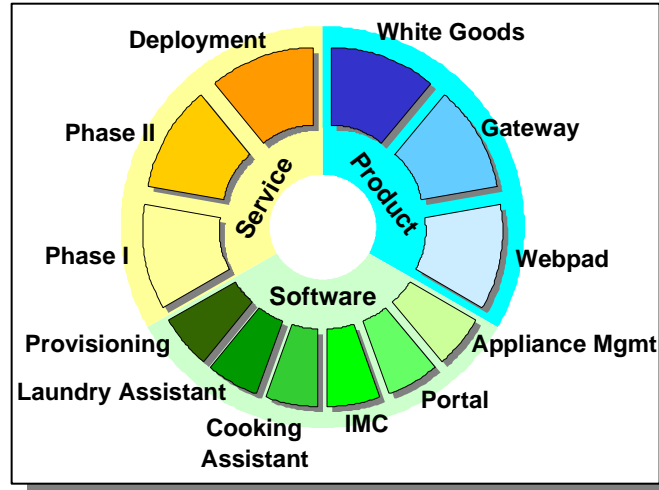
The **first reaction** we get when talking to customers and partners about the offerings bundled into IHS is 'You do what?...Why?'. Once we tell them our story, and walk them through the reasoning of why Whirlpool is a premium player in this space, they understand and support our vision. Telling the story in the right way is therefore of paramount importance.

The mix also allows us to tolerate other traditional competitors as part of the overall solution. The mix of hardware, software, and services does not lock us in as the exclusive provider of white goods, which strengthens our overall position and gives us more negotiation space. In the end, the white goods sale is a very important portion of our overall profit plan, but it comes *at the end of the process*. (see sales process).

A brief diagram of our offerings is shown below. As you can see, the 'catalog' is quite **mixed** and **extensive**.

The **three main areas** of Product, Software, and Service are indicative of the complexity of integration work we invested in. For the customer, this diagram creates a substantially less complex solution space.

It also shows that services are broken into **three phases**, only the two first ones are Consulting. The Community Support Service is an integral part of the overall offering, and has to be integrated well into the Consulting activities. However, Consulting is not linked to product or software sales.

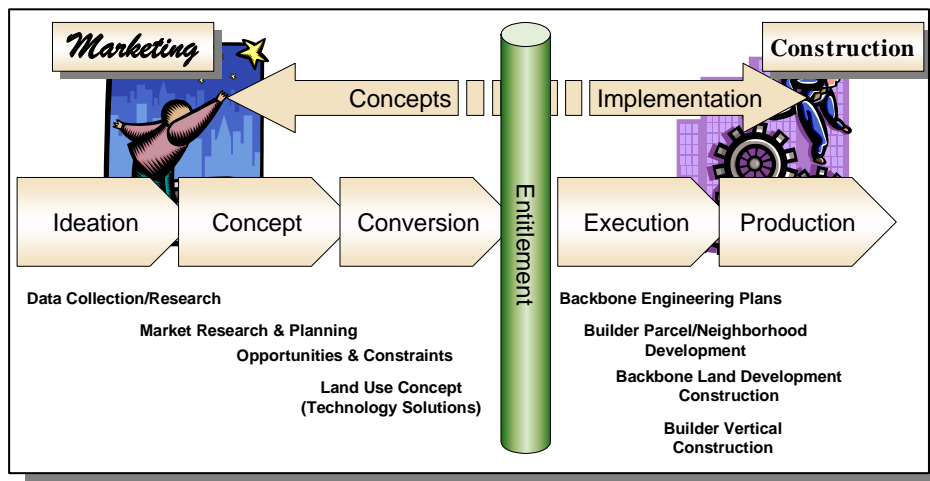


## The Sales Process

Real-estate Developers run a longer sales-process than the retail customer. In its core, the process follows the **traditional project phases** of Ideation, Concept, Conversion, Execution, and Production. These steps are drawn out over years for large communities. One of our customers is oscillating between Concept and Conversion for more than ten years.

The diagram below shows the alignment of the process steps with **major activities** within the developer and builder. It all starts with a piece of dirt that has the proper location to be partitioned and sold off to builders. The **key milestone** for the process is the entitlement, which gives the right to develop the property.

Typically, to shorten the time to first production, a development is broken into **projects with separate entitlements**. The interdependencies between the projects can be substantial, and changes in regulations, political landscape, or environmental issues can delay deployment between projects by years.



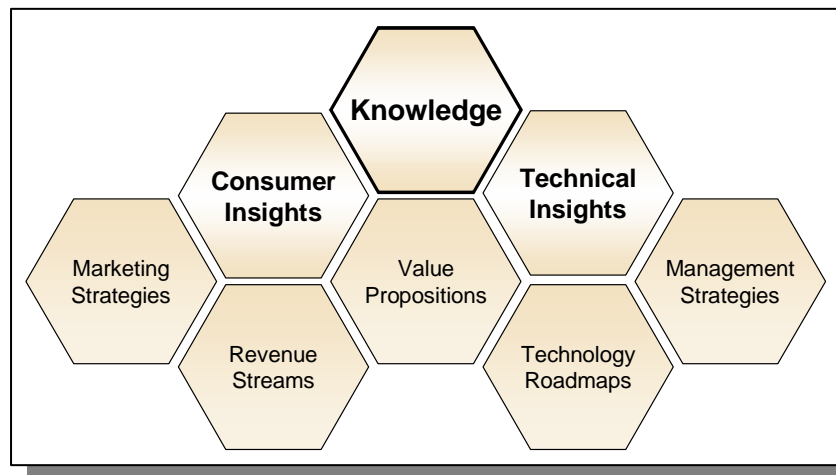
White goods are sold in the last phases of a real-estate development. The developer handles them as a **potential problem**; delivery problems delay the closing. In addition, the developer **does not make substantial profit** on appliances, but they do take floor space in the sales center. In the diagram below, appliances fall into the *Vertical Construction* activity. As a whole, appliances are low on the value proposition list for a real-estate developer and builder. They are handled by lower-ranking associates, do not participate in the marketing planning and research, and are put out for bid, mainly based on price. Appliances in the real-estate business are **commodities**.

**Consumer insight** and **value propositions**, on the other hand, rank very high for the concept workers, who typically consist of **financial, marketing, and technology strategists**. These customers look for quantitative and qualitative answers to their own concept work. Answers and solutions introduced at this early stage of the project will weigh heavy onto the supplier decisions made later on.

There are two distinct phases in the consulting addressing the **two fundamental questions**: What is the value proposition for networking the master-planned community, and what kind of technical solutions support such values.

## Knowledge Acquisition and Dissemination

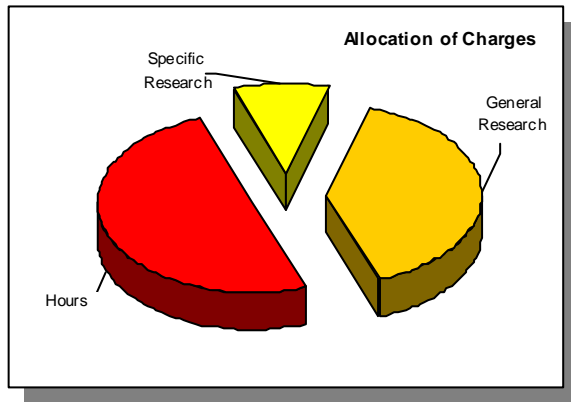
Consulting is the **application of knowledge**. It is common practice in consulting firms to reuse insights gained in one engagement in another. We will adapt this attitude and enhance its impact through the controlled dissemination of knowledge. Consulting markets two kinds of knowledge: **consumer** and **technology insights**.



Consumer insight is where Whirlpool plays a natural role. The **Brand Focused Value Creation** initiative that was started in 1998 has transformed the company. Understanding the consumer and their needs differentiates us from the other suppliers of technology solutions to the master-planned community. Instead of selling technology solutions, we can offer answers to questions like **monetary value, acceptance rate, and retention**.

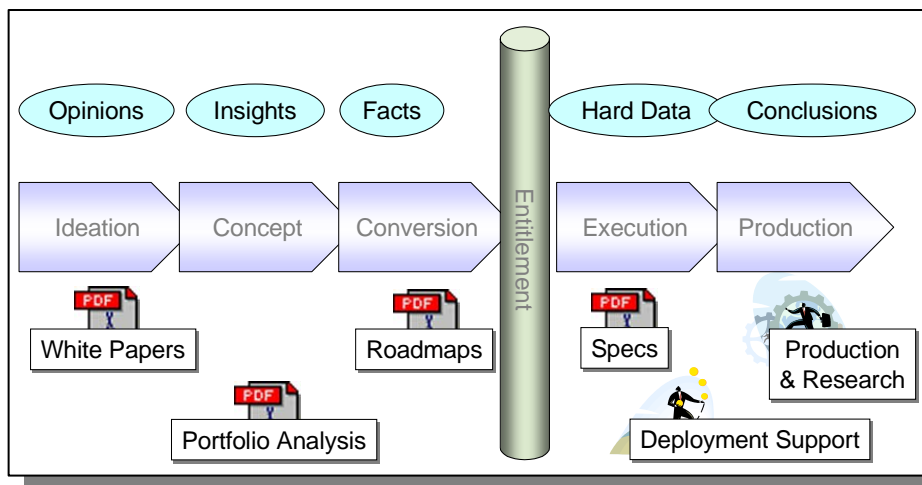
Consulting will use this insight as the launch pad to position Whirlpool as the **dominant insider** into the consumer value proposition. We sell **home and lifestyle management** solutions, based on consumer research. Our consulting provides opinions, predictions, pinpoint facts, and conclusions to our customers, catered to the specific stage in the project lifecycle.

The **first consulting phase** is all about **consumer insights**. The acquisition of such insights is **expensive**. To spread the cost, we will provide general research between non-competing developers. This general component, as well as specific research conducted for a community is acquired with the consulting arrangement as a **package**. The learnings from each research engagement are made available to all customers within a certain timeframe. Deliverables for the phase are geared towards the marketing functions within the community developer. These learnings will also drive enhancements to our own offering. This is the **finger on the pulse** for consumer needs.



The **second phase** of the consulting engagement homes in on **deployment insights**. Instead of providing qualitative data about the consumer, it provides recommendations on how to implement. Again, learnings out of this phase are shared between customers. The knowledge in this phase ranges between networking and hosting, software development and deployment, and appliance-technologies on the technology side, and insights in how to structure marketing activities on- and off-site campus on the business side.

For the community developers, this service is especially important. They are bombarded by information from Cisco, Microsoft, AT&T, to name but a few. **Who can they trust?** Whirlpool can tap into our strategic relationships and bring substantial partnerships to bear. Our strength lies in the appliance character of our products and software, in the heavy support for emerging and established standards, and the global reach. Again, **our own technology portfolio** will be enhanced by our exposure to new standards, trends, and solutions.



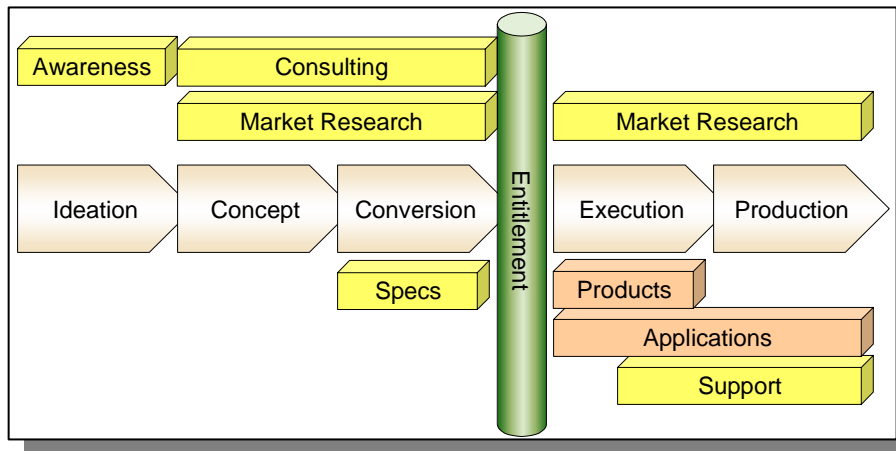
The resulting **knowledge roadmap**, broken into documents, looks like this. An interesting twist is that access to this knowledge is highly time-sensitive. Insights expire in their value quickly, so we can afford to publish knowledge to the customer community and into the public within a certain timeframe.

Chapter  
2

## CONSULTING ROADMAPS

## The Four Phases of our Sales Process

**Consulting eases its way into the MPC process.** It is broken into four phases with distinct deliverables. Each phase can be broken into several **contracts**. Contracts are always time-bound, with a defined list of deliverables and a firm resource commitment in hours. They are defined in a separate Statement-of-Work (SOW), and can be bound with a Master-Development-Agreement (MDA), a Letter-of-Intent (LOI), or a Letter-of-Understanding (LOU).



The diagram above shows the location of consulting as a service in the overall portfolio cycle. It becomes apparent that Market Research is tightly integrated with Consulting.

## Phase 0: Ideation Presentation

The first phase of Consulting is a presentation to the **community decision-makers** during their ideation stage. This presentation will give them **insights** into the market dynamics, glimpses at research, and our **overall strategy** and **consulting value proposition**. It will confront them with a new area of expertise, one that most probably they never encountered before. The presentation is therefore as much **educational** as it is **informative**.

The tone of presentation **avoids aspects of product sales**. To start with, this stage of the development and the audience is not interested in appliances. To compound the issue, the timeline for vertical production in the community will probably stretch out one or more years, which renders any product-specific discussions obsolete.

It **concludes** with a scoping exercise for a second-phase engagement for pay.

## Phase I: Value Proposition, Revenue Models, and Roadmaps

The contract is the basis for the second phase. Its deliverables include value proposition, revenue models, and roadmaps. Typically, more than one contract is created. This phase results in a sequence of contracts, usually totaling around \$xxk - \$xxxk.

### Deliverables

Deliverables of this phase are:

#### □ **Trends**

Whirlpools unique position between consumers, technology providers, and the real-estate developers allows us to observe changes in the overall space. Those trends are used internally to make decisions on our own strategies. The data used to make those decisions is used to allow our customer to make their own calls, and, through monitoring over time, to identify technology trends.

This document will paint a big picture, and relate to more detailed technical documents on specific topics:

#### • **Consumer Trends**

##### – **Value Propositions**

What general trends occur concerning technology acceptance and adaptation? What is perceived as valuable? What are the killer applications? What values align with the communities Guiding Principles?

##### – **Financial Trends**

What is the market size of networked communities? What disposable income can the builder expect from the homebuyer? What features are competing the budgets of the homebuyer?

#### • **Technology Trends**

##### – **Home Networking**

The choices in home networking with the pros and cons are of particular interest to the builder, since the supporting infrastructure has the highest replacement cost over time. Unfortunately, it is also the one choice with the least consumer appeal. A solid value proposition is necessary to make sure that the relative low level of investment in networking is not jeopardized by choices that are more glamorous.

##### – **Residential Gateway**

Since the RG is a 'closet appliance', the consumer relationship with this piece of equipment is low, yet the importance of the RG choice is pivotal to the overall consumer experience of a networked community. Again, the rapid change in the technologies involved makes a decision of the MPC developer crucial, and tough.

##### – **Web Pad**

The web pad is the manifestation of the networked community for the consumer. The amount of companies providing a pad is growing. For the developer, what pad is the right to market in his marketing center?

## □ **Executive Roadmaps**

Executive Roadmaps take trends and convert them into decision models. The detail level increases over time, starting with a low granularity. *Executive Roadmaps are not meant to be manuals. They are tools that help executives to make their decisions. They are also not meant to encompass all decisions in the community. They are focused on the Networked Community.* Typically, executive roadmaps are collections of documents with a common thread.

### • **CEO Roadmap**

This is the macro view of the MPC process to deploy a networked community as a high-level decision tree. The roadmap determines a successful path to implementation, identifies the major decisions made, the parameter classes of those decisions, and the magnitude of these decisions.

### • **CFO Roadmap**

This financial roadmap offers a portfolio of economic models that can be used to determine budgets and revenue expectations. It offers sensitivity analysis and risk planning.

### • **CMO Roadmap**

The marketing roadmaps outlines the options, decisions, and activities for the Chief Marketing Officer to market the community. It dives into value propositions, segmentation strategies, and proposed marketing activities.

### • **COO Roadmap**

Defines the activities requires to deploy and operate a networked community.

## □ **Market Research**

The first phase of consulting offers insights into general consumer behaviors that are shared between different MPCs. Whirlpool offers additional, more targeted research specific to the engaged MPC.

### • **Whirlpool Internal**

Research conducted by Whirlpool can be grouped into general-purpose research along core processes of Food Preparation and Fabric Care, and general-purpose research conducted on the IHS portfolio. The total of this research will be packaged as **Home-Management** and **Lifestyle-Management**.

### • **External**

External research is done specifically for a community or a group of MPCs. It has a more narrow scope than the Whirlpool research concerning location and consumer segment. Usually, this research is done in using a mix of online forums, focus groups, and interviews. It's purpose is to verify the decisions of this phase before progressing into the next.

## □ **Marketing Planning Support**

This group of deliverables introduces the developer in the new approaches in selling a networked community. At this stage, they are educational in nature, indicating the potential of new marketing concepts, both off- and online.

### • **Web Impact on Marketing Activities**

What new channels of engaging potential homebuyers are being formed or exist? Who are established players, what are their learnings? What value can a website marketing component bring to the MPC marketing effort?

- **Lifestyle Profiling and Buyer Qualification**

What consumer segments can be defined? What value propositions relate to the segments? What level of engagement is necessary to segment a new prospective homebuyer?

- **Visitor Center Technology Segment**

How to sell the technical capabilities of networked homes and networked communities? How much interaction on-site is required, how much research does the buyer conduct online. Who does the buyer trust?

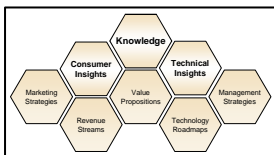
- **Portal Options**

Does a portal make sense in the community, what are the questions to help decide? What kind of portal services can be established? What is the value proposition behind them, what the initial investment and ongoing cost, what is the revenue stream?

## The Portfolio Analysis

These deliverables result in a **collection of documents** that span one or more topics: the **Portfolio Analysis**. These customized report-outs are based on *White Papers*, *Technology Analysis*, and *Research Pulses*, with a customized spin towards the community.

A typical engagement with a mid-size MPC developer (7k-10k residential units) will contain these Statements-Of-Work:



Leveraged Insight	Documents for Deliverables Phase I	Hrs	Price
Consumer & Technology	<i>Consumer Technology Trends</i>	40	
Value Proposition	<i>Combining Guiding Principles and the Value of Networking</i>	40	
Marketing Strategies	<i>Online Marketing for MPCs</i>	100	
Technology Roadmaps	<i>Sustainable Network-Technology Infrastructure Options</i>	100	
Revenue Streams	<i>The Value of a Community Portal</i>	60	
Verification Research on Networked Community Values		320	
<b>Total Price of Services</b>			

## Phase II: Technology Portfolio Analysis

The second phase of consulting deals with the **realization** of the concepts in plans with timelines and deliverables. The objective is to begin the process of alignment from existing roadmaps, trends, and community vision. To achieve this goal, marketing activities are developed, technology selections are facilitated, partnership creation is supported, and additional, specialized research is conducted.

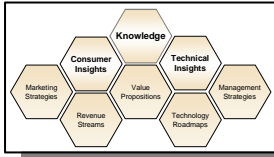
### Deliverables

- Planning undertaken for critical **pre-sales activities** such as marketing plan, visitor center strategy, and web based Integrated Marketing Center
- **Lifestyle profiling** and drivers identified, and cross referenced against communities' targeted consumers psycho-graphic data

- Key home level **hardware** and **design specs** support, such as gateway and structured wiring specs
- Field of potential **partner options** generated for review with developer
- Revenue** based on delivery of above items

### The Roadmap Portfolio

The output of Phase II is a series of documents that define how to implement the vision and direction defined in Phase I. Again, the documents are customized to the consulted community, using *White Papers*, *Technology Analysis*, and *Research Pulses*.



Leveraged Insight	Documents for Deliverables Phase I	Hrs	Price
Marketing Strategies	<i>Pre-Sales Activities of the Networked Community</i>	160	
Value Proposition	<i>Consumer Segmentation and Value Propositions</i>	160	
Technology Roadmaps	<i>Hardware Specs for Sustainable In-Home Networking</i>	80	
Technology Roadmaps	<i>Partner Comparison for Networking Infrastructure</i>	80	
Revenue Streams	<i>Revenue Planning for Ongoing Community Services</i>	120	
Research		0	
<b>Total Price of Services</b>			

### Phase III: Deployment Support

Community Support Analysts are ready to help in the **deployment** of networked systems inside the community. Since they provide a product and service related support, they are **not** part of the consulting branch of Broadband Services. Nevertheless, they interface tightly with the proposals developed in phase I and II to ensure the benefits are realized.

Support Analysts will:

- conduct **training** sessions for builders and wiring and installation procedures,
- help **set up** the **technology section** of the visitor or marketing center
- set up** any **services** purchased from Whirlpool corporation
- conduct **educational meetings** with commercial partners and residents to communicate the value of the community portal and their role in it
- support ongoing research** activities that ensure the success of successive build-out phases
- act as the first **point of contact** for the developer and builders into IHS

## Pricing

The **unit of work** that is used as a baseline to pricing is the consulting hour. The current price for one hour of consulting is an average of \$xxx. This number comprises of a mixture of time provided by analysts, the consulting manager, the IHS leadership team, and other IHS related service providers. The bulk of the workload is assigned to the analysts.

Each engagement is delivered in form of **Report-Out documents**. These documents are customized to the respective community. Traditionally, the delivery includes documents in Acrobat PDF and MS Office format, color-printed copies, and a presentation to the developer staff. Research documents can also be made up of Microsoft Excel files and Access databases. They can also contain audio and/or video files like WAV or MPEG. Access to a Intranet web site as an ongoing communication vehicle will be considered. The engagement is **completed** with the hand-over of three copies of a CD-ROM containing all the files, plus three printed copies of the PDF files, in separate binders.

If the contract with the developer exceeds more than \$xxx,000 per year, he also gains access to the White Papers and Research Pulses for the duration of that year. He is also subscribed to the Monthly Newsletter '*Networked Community Experiences*'.

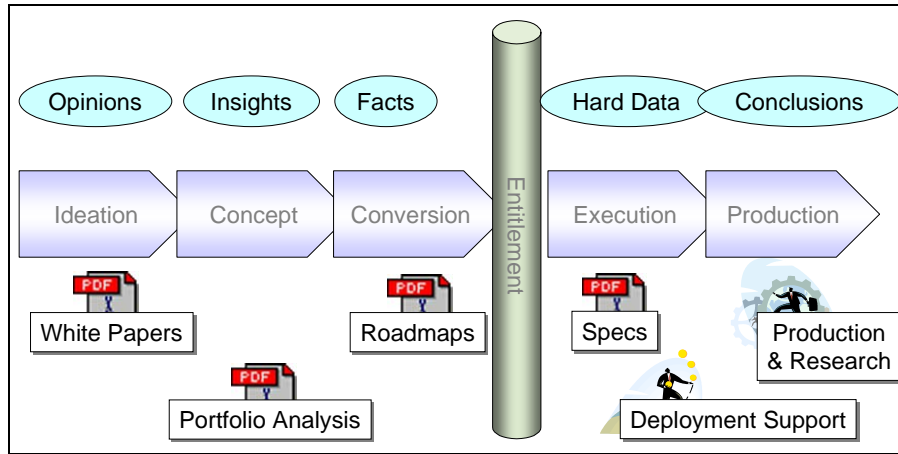
For members of the ULI, White Papers become available after one year as part of their subscription to ULI.

Chapter  
**3**

# THE BREADCRUMBS

## A Trail of Documents

We have to accumulate knowledge fast. This forces us to retain as much information as possible from each consulting arrangement.



<i>Consumer Technology Trends</i>	40	
<i>Online Marketing for MPCs</i>	100	
<i>Sustainable Network-Technology Infrastructure Options</i>	100	
<i>The Value of a Community Portal</i>	60	
Verification Research on Networked Community Values	320	
<b>Total</b>		

Document	Core Deliverable	Hrs	Price
<b>A.1</b>	<b>Combining Guiding Principles and the Value of Networking</b>	<b>40</b>	
White Papers	A.1.1 Market Size and Adoption Rate for Residential Networking	-	
	A.1.2 Online Marketing Strategies in MPCs	-	
	A.1.3 Energy Management in Networked MPCs	-	
	A.1.4 Value Creation and Preservation Strategies for Residential Information Technology Equipment	-	
	A.1.5 Wireless Services in the networked community	-	
	A.1.6 Governmental Influences on Residential Networking	-	

Document	Core Deliverable	Hrs	Price
A. 2	<b>Consumer Technology Trends</b>		
A. 2	<b>Value Propositions of the Community</b>	<b>60</b>	
White Papers	A. 2. 1	General Consumer Value Propositions of Networked MPCs	-
	A. 2. 2	Value Propositions and Consumer Segments	-
	A. 2. 3	Value Proposition to Governmental and Local Authorities	-
	A. 2. 4		
	A. 2. 9	Financial Elasticity in Networked Value Propositions	-
	A. 3	Technology Roadmaps for the networked community	40
	A. 9	Verification Research of value selection	

## General Documents

### White Papers and Briefs

Documents that speak to a general issue are published as White Papers. They are typically no longer than 3-8 pages. Typically, they offer *insights* into a new research finding, a standardization event, or a new technology offering.

It is important that White Papers do not include this information in raw or analyzed form, but the *conclusions* the author made based on these data points.

In addition, Briefs can be published that address a specific issue within 1-2 pages. Typically, briefs are more opinionated than White Papers.

### Technology Analysis

Technology Analysis papers expose the decision preparation processes within Whirlpool to the customer. This includes the requirement definition, the market research, the RFPs, and the side-by-side comparison.

### Research Pulse

A Research Pulse is the aggregate of the results out of a research engagement.

### Specs

Specs are the backbone of our standardization efforts.

## Consulting Deliverables

### Portfolio Analysis

A Portfolio Analysis is the result of Phase I. It speaks to the value proposition of the community and the aligned basket of offerings.

## Roadmaps

Roadmaps are the result of Phase II. They provide detailed project plans on how to implement a specific technology solution set.

## Deployment Support

These documents are addressing specific issues in the deployment of the community offerings.

## Production and Research

Documents include community management documents and ongoing consumer research.

## Access to Insights

All documents above are not everlasting. Each has an diminishing value over time. To turn this perceived weakness into a strength, we will release documents in a timed fashion to our customer based ('subscribers) and the general public.

## A Research Network

Consulting provides ongoing value to our customers, well beyond the consulting engagement. As long as we have a signed contract with a developer, he has access to research data as well as White Papers. This access is purchased with phases of consulting. A customer of Phase I has access to consumer research, a customer of Phase II to technology research.

## Release Schedules

All documents produced by IHS are eventually available to the general public. The timing of this release schedule is a carefully measured exercise between credibility, standard setting, and value proposition.

In general, the more customer-specific a document is, the later it will be made available to the public. Documents that are made upon request for a customer are never released to another entity without the customer's consent.

Document Type	Initial Release	Network	ULI et al.	GA
<i>White Papers</i>	Every three months	Immediately	Six months	One year
<i>Portfolio Analysis</i>	End Phase I	One year	Two years	Never
<i>Roadmaps</i>	End Phase II	One year	Two years	Never
<i>Specs</i>	Every three months	Immediately	Six months	One year
<i>Deployment Support</i>	Upon Request	Never	Never	Never
<i>Production / Research</i>	Upon Request	Six months	One year	Never

## Copyrights

All documents that are produced in an engagement are subject to **shared copyright** between the customer and Whirlpool. Specifically, the customer is only allowed internal use. See the attached Terms & Conditions for details (page **Error! Bookmark not defined.**).

## Contact Management

The business of knowledge sales requires a more **strict contact management** approach than usual for Whirlpool. We have to identify potential customers and partners, define contact persons, follow our interactions with these persons, and make sure that we paint a consistent picture to them.

Currently, there is **no standard contact management tool** within Whirlpool. Therefore, a non-system approach will yield results faster. The proposal is to maintain all interactions with customers and partners in a **Notes database**. We will ask the Notes support team to 'go hunt' for a template that fulfills our needs.