Exhibit 10.3  
 MANUFACTURING  
AGREEMENT  
 between  
 MOTOTECH INC.  
 and  
 WORLDGATE COMMUNICATIONS, INC.  
   
 This agreement (the “Agreement”) is entered into and made effective as of the 9th day of September, 2003 by and between MOTOTECH INC., a Taiwanese corporation, having its principal place of business at Xx. 0, Xxxx Xxx. XX, Xxxxxxx-Xxxxx Industrial Park, Hsinchu 300, Taiwan, R.O.C. (hereinafter referred to as “Mototech”) and WORLDGATE COMMUNICATIONS, INC., a corporation incorporated and existing under the laws of the State of Delaware, having its principal place of business at 0000 Xxxxxxx Xxxxxx, Xxxxxxx, XX, 00000 (hereinafter referred to as “Developer” and together with Mototech, the “Parties” or a “Party” as the case may be).  
 RECITALS:  
 WHEREAS, Mototech is engaged in the business of developing, manufacturing and selling various electronic products, including without limitation cable modems and wireless data devices; and has developed significant expertise with respect to such products;  
 WHEREAS, Developer has designed a videotelephone (the “Product”) and desires to use Mototech’s expertise to assist Developer with the productizing of the Product, including such things as design, cost reduction, manufacturability and sourcing for the videophone;  
 WHEREAS, Mototech is willing to provide such assistance to Developer on a contract basis  
 NOW, THEREFORE, in consideration of mutual promises and other good and valuable consideration, receipt of which is hereby acknowledged, the parties do hereby agree as follows:  
 1. TERM  
 The term of this Agreement is from the effective date entered above for two (2) year. Unless it is terminated on an earlier date pursuant to this Section 1, this Agreement shall be automatically renewed for successive one (1) year terms unless a Party gives written notice to the other of its election not to renew this Agreement.  
 A. This Agreement may be terminated by either Party for any reason at any time during the term of the Agreement. Notice of termination must be submitted in writing ninety (90) days in advance of the effective date of termination. During that final 90 day period, Mototech shall, at Developer’s request continue to manufacture and ship Product in accordance with the existing delivery schedule on the Developer’s purchase orders (“POs”).  
 B. This Agreement shall terminate forthwith, at the option of either Party by notice in writing to the other Party, upon the occurrence of either one or more of the following events stated below:  
 • in the event that the other Party ceases to carry on its business or in the event the other Party becomes the subject of any proceedings for the relief of debtors or otherwise becomes insolvent, bankrupt, or makes an assignment for the benefit of creditors, or upon the appointment of a receiver for the other Party, or its reorganization for the benefit of creditors.  
 • in the event that the other Party has failed substantially in the performance of any material contractual obligation, not remedied to other Party’s satisfaction, within sixty (60) days after written notice to other Party specifying the nature of such default and requiring remedy of the same.  
 2. PRODUCT DEVELOPMENT.  
 Exhibit A to this Agreement contains specifications for the Product to be further developed hereunder, which specifications may be modified from time to time pursuant to the provisions of this Agreement (as  
   
 such specifications are so modified, the “Development Specifications”). Mototech hereby agrees to and accordingly will so design and develop the Product for Developer, in conformity with the Development Specifications.  
 3. DEVELOPMENT PROCEDURES, SCHEDULE AND REPORTING  
 Developer and Mototech shall perform their respective obligations hereunder in compliance with the procedures set forth in Exhibit B to this Agreement (the “Development Procedures”), including without limitation the schedule and reporting/program review requirements contained therein. The Parties agree and acknowledge that the aforesaid procedures are critical to this Agreement, and without limiting their obligations hereunder, shall reasonably notify the other promptly of any circumstance that may affect their ability to comply with such procedures, including the schedule.  
 4. DEVELOPMENT COSTS  
 Subject to Mototech’s adherence to the Development Procedures, Developer shall pay for Mototech’s services under this Agreement in accordance with the milestone payment schedule set forth within such Development Procedures. Except as set forth herein all costs and expenses incurred or payable by Mototech in connection with the performance of its services under this Agreement shall be the responsibility of Mototech.  
 5. INTELLECTUAL PROPERTY RIGHTS  
 A. Mototech and Developer have executed a Non-Disclosure Agreement in the form of Exhibit C to this Agreement, either prior to or contemporaneously with their execution and delivery of this Agreement. The provisions of such Non-Disclosure Agreement shall be controlling with respect to the use and disclosure of information hereunder.  
 B. In the event that the Products are to bear any trade names, trademarks, insignias, logos and the like, which are owned or controlled by any Developer affiliated company (“Developer Marks”), such use shall be strictly in accordance with Developer’s written directions and nothing contained in this Agreement or in any PO shall transfer or grant to Mototech any right or interest in the Developer Marks except use thereof in the supply of Products to Developer pursuant to the PO.  
 C. Mototech agrees that the tools, dies, drawings, designs, specifications, procedures, artwork, materials, components, etc., consigned, supplied or paid for by Developer shall be and remain Developer’s property, shall be used only on Developer’s orders, and shall be held by Mototech for Developer or promptly returned to Developer, as Developer directs. Mototech will take such reasonable actions as are necessary to ensure that such Developer property does not become subject to any lien or adverse interest of any other Party and shall account for and keep the same in good working condition and fully covered by insurance at all times without further expense to Developer.  
 D. As between the Parties hereto the ownership of and all rights in and to the such Product (“Development Technology”) as developed hereunder, but excluding any of Mototech’s Background Technology as defined below, shall vest in and be owned by Developer. Accordingly, and for all purposes hereof, to the extent of any contribution as a result of the services rendered hereunder by Mototech, the resulting Development Technology shall be deemed a work for hire, which shall be owned by Developer and which is hereby assigned to Developer. By way of example and not limitation, Developer’s right to the Development Technology shall include all designs, documentation, methods, processes, inventions, works and other design, development and manufacturing materials and other related information resulting from the development efforts hereunder, including without limitation all patents (and all applications for the same whether in process or not), copyrights (and all applications for the same whether in process or not), trade secrets and other intellectual and property rights in or based upon the foregoing, in whole or in part. As used herein Background Technology shall mean any designs, documentation, methods, processes,  
   
 inventions, works and other design, development and manufacturing materials and information relating to this development effort and in existence and owned by such Party prior to the commencement of the services hereunder, as well as all patents (and all applications for the same), copyrights (and all applications for the same), trade secrets and other intellectual and property rights in or to the extent based upon the foregoing, and owned by a Party hereto prior to the date of this Agreement (collectively the “Background Technology”). Each Party retains all ownership interests in their Background Technology and except as required for the operation of this Agreement or as authorized in writing by the Party owning the same, all such Background Materials and all copies thereof shall be returned to such Party owning the same at the termination of this Agreement. Except as expressly set forth in this paragraph, nothing contained herein or in any PO shall transfer or grant to Mototech or any other party, any of Developer’s rights in the Product or any Development Technology except the use thereof as reasonably required for Mototech’s performance of its obligations hereunder.  
 E. Products ordered hereunder to be made with use of Developer’s confidential information, designs, trademarks, trade names, or other intellectual property rights, shall be furnished by Mototech exclusively to Developer or such designees as it may expressly authorize in writing. Developer expressly reserves the right to have multiple sources of manufacture and supply for the Product.  
 F. In the event Mototech devises and incorporates any new features or design into any Products made hereunder, which are not otherwise deemed to be Development Technology, Mototech hereby grants to Developer the right of reproduction of such items, together with a worldwide, royalty-free, nonexclusive, irrevocable license to make, have made, use and distribute such new features and designs as part of the Product, whether or not manufactured or supplied by Mototech.  
 6. REPRESENTATIONS AND WARRANTIES  
 The Parties make the following representations and warranties for the benefit of each other hereunder:  
 A. No Conflict. Each Party represents and warrants that it is under no obligation or restriction, and it will not assume or incur any such obligation or restriction, that does or would in any material way interfere or conflict with, or that does or would present a conflict of interest concerning its obligations hereunder.  
 B. Ownership Rights. Each Party represents and warrants that (1) it has and will have full and sufficient title and/or right and interest to grant the title, rights and/or licenses to be granted by it pursuant to this Agreement; (2) neither the execution or performance by a Party under this Agreement, nor the consummation of any transactions contemplated herein by a Party, does or will (i) violate any law, order, regulation or ruling applicable to the Products or the Development Technology, (ii) to the best of each Party’s knowledge and belief, their efforts and deliverables hereunder will not infringe any intellectual or other property, personal or contract rights of any third party; and (3) no claim (whether or not embodied in an action, past or present) of any such infringement as aforesaid, has been threatened or asserted, nor is any such a claim pending, against a Party (or, insofar as such Party is aware, any entity from which such Party has obtained any rights related to the Products or the Development Technology).  
 C. Performance. Mototech will perform all work hereunder in a professional manner and with corresponding diligence, expertise and skill.  
 D. Deliverables Warranty. Mototech warrants that the required that it’s required deliverables hereunder shall conform to the corresponding requirements of the Development Specifications and the Development Procedures.  
 7. SUPPLY OF PRODUCTS  
   
 Mototech shall manufacture and sell to the Developer and the Developer shall purchase from Mototech the Products in accordance with the following procedure:  
 A. The agreed manufacturing lead-time required by Mototech is sixty (60) working days, and the Developer agrees to place Purchase Orders in a timely fashion taking cognizance of the lead-time. Mototech agrees to confirm the Developer’s requested shipment dates within five (5) working days by FAX, or E-Mail.  
 B. Developer shall provide to Mototech a non-binding three months rolling forecast on a monthly basis.  
 C. From time to time during the term hereof Developer may furnish POs to Mototech to purchase Products hereunder. Such POs shall reference this Agreement, describe the nature and quantity of the Products being ordered, and set forth the requested release or shipment dates. Products can only be purchased hereunder with the issuance of a PO by Developer. In the event such POs are placed by telephone or facsimile, they shall be promptly confirmed by Developer in writing. Providing such POs are placed in accordance with the terms of this Agreement, including without limitation any lead-time requirements and forecasting procedures set forth herein, they shall be accepted by Mototech. Mototech shall not, however, be required to accept any PO hereunder which requires shipment or release of quantities exceeding such forecasts by more than ten (10%) percent. The parties will from time to time discuss Mototech’s production capacity for the Products, taking into account Developer’s forecasts, currently scheduled Product shipments, and the POs currently placed for the Product. Acceptance of any POs by Mototech may be made by signing and returning the attached acknowledgment copy of the PO, or by other express acceptance. If Mototech uses its own form to accept a PO, it is understood that such use is for Mototech’s convenience only and that Developer hereby refuses to assent to any terms or conditions contained therein, whether conflicting with or in addition to those contained herein, and such conflicting and/or additional terms and conditions shall be of no force or effect.  
 D. Except as set forth herein Developer shall have the right at any time and from time to time, to make changes of any kind or nature with respect to a PO, including without limitation, cancellation or rescheduling of the PO. If any such change causes a material increase or decrease in Mototech’s cost or the time required for the performance as set forth herein (each as determined in accordance with generally accepted accounting and manufacturing practices which are consistently applied,) Mototech may, at its election, require the payment of an equitable change adjustment. Developer may, however, at any time and from time to time, without further cost or liability (including any equitable change adjustment), by written notice to Mototech at least thirty (30) days prior to a required delivery date, reschedule any POs, in whole or in part, to a later rescheduled delivery date, not more that thirty (30) days from the original scheduled delivery date. Such equitable change adjustment shall be Mototech’s only remedy for such change by Developer. Such equitable change adjustment shall not include any costs or expenses of Mototech or Mototech’s suppliers or subcontractors which Mototech could reasonably have avoided, such as, by way of example and not limitation, charges for any work done after receipt of the notice of cancellation (other than as required by Developer). In no event shall any equitable change adjustment for a cancellation of a PO exceed the purchase price of the Products canceled, nor shall any such charge apply to goods or materials which are reasonably returnable by Mototech or otherwise useable or can be sold in the normal course of Mototech’s business without violation of the terms of this Agreement. At its option, Developer shall be entitled to delivery of any Products (at the current state of production) and the costs (cost savings) of which are included within such cancellation charge. Any claim for an equitable adjustment hereunder shall, however, be made by Mototech as soon as is practical, but no later than forty-five (45) days from the date such change is requested. Mototech agrees to accept any such changes subject to the provisions of this Section and continue its diligent performance under the PO as so changed, which PO shall be modified in writing accordingly to reflect such change. Unless agreed in writing by Developer, Mototech shall not purchase materials, or make commitments or production arrangements, in excess of the amount, or in advance of the time reasonably necessary to meet the required delivery date as set forth on a PO.  
   
 E. Mototech shall xxxx, package, store, transport and ship all Products to reasonably ensure (i) delivery thereof to the identified ultimate destination in safe condition, (ii) compliance with good commercial practices and all requirements of the carrier and destination authorities and (iii) compliance with any reasonable special instructions of Developer. All invoices, shipping documents, exterior packaging and correspondence related thereto shall indicate the PO number and include suitable markings and information to reference the covered Products. All shipments shall be accompanied by the appropriate shipping documents, including without limitation, applicable customs and export documentation and an itemized packing list indicating the PO number, description of the Products and total quantity by “lot” for such Products. Developer’s count and/or weights shall be conclusive on shipments not accompanied by a conforming packing list. All Products shall be insured for their replacement value with Developer named as an additional loss payee with respect to the same to the extent of its interest therein. All Products shall be manufactured and delivered to Developer in accordance with the required delivery dates, time being of the essence. Mototech shall immediately notify Developer by telephone of the occurrence of any delay and the period of such delay in the scheduled and or actual delivery of any PO or any portion thereof with respect to the required delivery date. If such delay in delivery is expected to be, or is for a period of more than five (5) days and is not due to Developer’s fault, Developer may, at its option, and by written notice to Mototech (a) agree to reschedule the delivery date for the delayed PO or delayed portion thereof; or (b) require the Mototech to ship the Product by expedited air freight or other premium means and charge the Mototech with the cost difference.  
 F. Mototech shall invoice Developer for the Products upon the actual shipment thereof to the Developer, and each invoice shall (i) reference the applicable PO number, (ii) cover only a single PO or delivery thereunder, (iii) be itemized with respect to the Products so delivered, and (iv) be tendered to the appropriate address as set forth on the PO. Such invoices shall be payable in accordance with the payment terms set forth on the face of such PO, or if none, payment shall be due thirty (30) days from, and any payment period or discount related thereto shall begin upon, the later of Developer’s receipt of the invoice or the Products. Developer may deduct from any payment due to Mototech or set-off against any claim by Mototech any amount which is due to Developer by Mototech for any reason, including, among other reasons, any charges caused by deviations from the terms, conditions and provisions of a PO. Unless otherwise set forth on the face of the PO, title and risk of loss with respect to the Products hereunder shall pass to Developer upon Developer’s receipt of the conforming Products at the destination designated by Developer on the face hereof. Prior to passage of title to Developer the Products shall be held by or on Mototech’s behalf without risk or expense to Developer, and any payments received by Mototech for the purchase of such Products shall be held in trust by Mototech pending such title transfer.  
 G. In no event shall Mototech, without Developer’s prior written consent, (i) make any changes to the Product, or (ii) make any changes to the manufacturing process for the Product which detrimentally affect the Product’s manufacturability, appearance, operation, reliability, performance or quality  
 8. PRICES AND PAYMENT  
 A. Mototech agrees to supply the Developer with Products at the prices set forth in Exhibit A.  
 B. Unless the key component(s) costs vary more than, either increase or decrease, ten (10%) percent of its original costs, the prices shall remain fixed and firm for the contract period. The parties agree to re-negotiate the price in good faith upon the occurrence of such cost changes.  
 C. All prices shall be inclusive of packing FOB Taiwan.  
 9. WARRANTY AND QUALITY CONTROL  
   
 A. Mototech warrants for a period of twelve months from the date of shipment that all units supplied under this Agreement shall be free from defects in material and workmanship, and shall comply in all respects with the Development Specifications.  
 B. Mototech’s sole responsibility under said warranty shall be, at its cost and expense and within a reasonable period (not to exceed sixty days) after the return thereof to Mototech under the provisions hereof, to repair or replace any Product that fails to comply with the above warranty (“Defective Product”). If the cause of a Defective Product is not corrected and/or the affected Products are not repaired or replaced within such period, Developer may, at its option and by written notice to Mototech at any time and from time to time thereafter during the continuance of Mototech’s failure to correct the Product Failure: (i) without liability or charge, cancel any PO or affected portion thereof and return for a full refund any Products to which the Product Failure relates, or (ii) make such corrections, repairs and replacements as are required with respect to the Product Failure and charge Mototech for the costs incurred in so doing if such costs has approved by Mototech within thirty days of receipt of notice of the estimated amount of such costs, which approval shall not be unreasonably withheld or delayed. All such monies as may become payable to Developer hereunder shall be promptly paid by Mototech, or at Developer’s option offset against any monies due to Mototech. Prior to returning the defective Product, the Developer must contact Mototech to retain a Return Material Authorization (RMA) number, which shall not be unreasonably denied or withheld. The (RMA) number shall be noted on the shipping carton and on all shipping documents. The transportation costs incurred with respect to the return of such products shall be borne by the Developer when returned to Mototech, and by Mototech when returned to the Developer.  
 C. Any repairs or maintenance required by Developer outside of warranty period shall be provided by Mototech and charged to the Developer at a reasonable material cost basis and Mototech’s standard rates of labor in effect at that time.  
 D. Mototech shall conduct such routine sampling, testing and analysis as reasonably necessary to verify that the Products comply with the Mototech’s warranty hereunder, and shall maintain suitable records to analyze and track Defective Products and trends associated therewith. Upon Developer’s request Mototech shall furnish Developer with a summary of the same. Mototech agrees to monitor its quality and to improvement systems and procedures, and establish controls on critical parameters and key processes as reasonably required by good commercial practices or as may be reasonably specified by Developer. Mototech shall durably encode the manufacture date and other material identification information as may be reasonably requested by Developer on the outside of each Product by bar coding or such other method as may be set forth in the Specification. Developer or its agents may inspect the Products upon receipt and/or at any time prior thereto at Mototech’s facility or otherwise. Neither receipt nor payment of or for the same shall be construed to constitute an acceptance of any Products not in compliance with the requirements of this Agreement and the PO, including without limitation Mototech’s warranty herein. Developer’s required shipping or release schedule, quantity requirements and/or shipping instructions hereunder. Developer reserves the right to refuse to accept Products which do not conform with such requirements.  
 E. The warranty as set forth in this Section 9 is in lieu of all other warranties, whether expressed, implied or statutory, including but not limited to implied warranties of merchantability and fitness for a particular purpose. The repair and replacement service will not cover for the Products that were misused, unauthorized fixing or by other reasons beyond Mototech’s fault.  
 10. LIABILITY  
 In no event shall either Party be liable, whether in contract, in tort or any other reason for incidental, consequential, indirect or special damages or liabilities, or for (i) loss of revenue, loss of business or other financial loss arising out of or in connection with the sale, lease, maintenance, use, performance, failure or interruption of the Products, or (ii) any loss, property damage, personal injury or expense, including legal expense, incurred by any employee, agent, or invitee of the other Party, regardless of how caused.  
   
 11. INDEMNITY  
 A. Subject to subsection B below, if the Product purchased from Mototech under this Agreement or used in connection therewith or anything done in relation thereto shall infringe or to be alleged to infringe any patent, registered design, trademark, copyright or other intellectual property right, Mototech shall indemnify the Developer against all claims, damages, expenditure and liability which the Developer may sustain or incur by reason of or in connection with such infringement or alleged infringement provided that Mototech receives prompt written notice of all such Intellectual Property Claims, and all commercially reasonable assistance in the defense of such claims. Mototech shall have sole control of any defense and any settlement. If the use or sale of any Product as contemplated under this Agreement is enjoined as a result of any Intellectual Property Claims, then Mototech shall at its option, (i) obtain for Developer, at its expense, any required license for Developer to use, market or sell the Product as contemplated by this Agreement; or (ii) redesign the infringing portion to be non infringing while maintaining the original function; or (iii) replace the infringing product with an equivalent, non-infringing product approved by Developer.  
 B. This indemnity shall not apply to infringements caused by designs modifications made by the Developer or designs (including Development Specifications) provided by Developer if but for the design or modification such infringement would not occur.  
 12. TERMINATION  
 Any NOTICE hereunder shall be deemed to have received if received by facsimile transmission followed by receipt of original notice within seven (7) days after it has been deposited in the mail, proper postage prepaid and registered, addressed as follows:  
 To Mototech:  
 To Developer:  
 Mototech Inc.  
 WorldGate Communications, Inc.  
Xx. 0, Xxxx Xxx., XXX,  
 0000 Xxxxxxx Avenue  
Science-Based Industrial Park  
 Trevose, Pa  
Hsinchu 300, Taiwan, R.O.C.  
 Tel: x000-0-0000000  
 000-000-0000  
Fax: x000-0-0000000  
 000-000-0000  
 Attn.:   
 13. MISCELLANEOUS  
 A. Assignment. This Agreement shall be binding upon the parties hereto and their respective successors and assigns, with the further understandings, however, that neither Party shall have the right to assign this Agreement (or any or its rights hereunder) to any person, firm or corporation in the absence of  
   
 having received the other Party’s prior written consent therefore, which consent shall not be unreasonably withheld or denied.  
 B. Entire Agreement. This Agreement supersedes all prior agreements either written or verbal and this Agreement along with the Exhibits referenced herein (as the same may be amended in accordance herewith) contain the entire Agreement between the parties and may not be altered, amended or modified, except by formal agreement in writing signed by duly authorized representatives of both parties.  
 C. Relationship of Parties. The relationship of Developer and Mototech as established under this Agreement shall be and at all times remain one of independent contractors, and neither Party shall at any time or in any way represent itself as being a dealer, agent or other representative of the other Party or as having authority to assume or create obligations or otherwise act in any manner on behalf of the other Party.  
 D. Governing Law. This Agreement shall be interpreted and construed, and the legal relations created herein shall be determined, in accordance with the laws of the state of New York.  
 E. Arbitration. Any dispute, controversy or claim arising out of or relating to this Agreement or to a breach thereof, including its interpretation, performance or termination, shall be finally resolved by arbitration. The arbitration shall be held in Honolulu, Hawaii in accordance with the rules of American Arbitration Association. The decision of the arbitrators shall be final and binding upon the parties hereto, and the expense of the arbitration (including without limitation the award of attorneys’ fees to the prevailing Party) shall be paid as the arbitrators determine. The decision of the arbitrators shall be executory, and judgment thereon may be entered by any court of competent jurisdiction.   
 F. Force Majeure. Neither Party shall be held responsibility for any actions that are not under their control, which may breach the above contract in any way.  
 G. Waiver. A waiver of any breach or any provision of this Agreement shall not be construed as a continuing waiver of other breaches of the same or other provisions of this Agreement.  
 H. Survival of Contents. Notwithstanding anything else in this Agreement to the contrary, the parties agree that Sections 5, 6, 9-13, as well as any obligations or rights which by the terms hereof have accrued, shall survive the termination or expiration of this Agreement to the extent required thereby for the full observation and performance by any or all of the parties hereto.  
 IN WITNESS WHEREOF, the parties hereto have executed this Agreement by causing their duly authorized representatives (officers) to sign below as the date first written above.  
 MOTOTECH INC.  
WORLDGATE INC.  
 By:  
/s/ X.X. Xxxx  
 By:  
/s/ Xxx Xxxxxxxxx  
 Name: X.X. Xxxx  
Name: Xxx Xxxxxxxxx  
(Print)  
(Print)  
 Title: Chairman and President  
Title: Chairman and CEO  
 Date: September 9, 2003  
Date: September 11, 2003  
   
 Exhibit A  
 PRODUCT SPECIFICATIONS  
 Ojo 1000  
Brief Functional and Technical Specification  
PN 70501002-B03  
2005, June 8  
   
 Document History  
 Rev.  
 Description of Changes  
 Requested By  
 Authored By  
 Date  
 B01  
 Initial Draft. Dervied from 71001001-15 Ojo 1000 Product Requirements Specification xxxx-up and 71301004-01 Ojo 1000 Product Specification Sheet  
 Xxxx Xxxxxxxxx  
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 20050605  
 B02  
 Edits to requirements per Rich.  
 Xxxx Xxxxxxxxx  
 Xxxxx Xxxxx  
 20050608  
 B03  
 Edits to document per Xxxxx Xxxx.  
 Xxxxx Xxxx  
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 20050608  
   
 1 Introduction  
 Overview  
 This document defines the requirements for the 1.0 release of the Ojo video phone. Included are individual requirements for hardware, systems, software, user interface and user experience.  
 Document Terminology  
 TERMINOLOGY  
 PRIORITY  
 DESCRIPTION  
 Shall  
 High Priority  
 A must-have  
 Will  
 Medium Priority  
 Perceived as a necessity but not required to meet minimum product requirements.  
 May  
 Low Priority  
 Would be nice to have if time, resource, and development constraints allow.  
 Definitions  
 Call - the event that begins when one telephone device connects to another and ends when that connection is terminated.  
 Call cleanup - the process of disconnecting a phone call.  
 Call setup - the process of using a phone device to initiate a connection with another phone device.  
 Handset - a device that is used for audio-only calls, or for audio privacy when engaged in video calls.  
 Headend components - all hardware components that are required for inclusion in a cable headend facility to enable video and audio phone communications.  
 Household components - all hardware components beyond the video phone that are required within the user’s house to enable video and audio phone communications.  
 iLBC - Internet Low Bitrate Codec.  
 SIP (Session Initiation Protocol) - a signaling protocol for real-time Internet conferencing, telephony, presence, event notification, and instant messaging.  
 System - the entire collection of hardware, firmware and software, including cable headend equipment, required to make the product work.  
 UNIT – the device’s main unit, excluding the handset and power supply.  
 Video call - a phone call that includes both audio and video.  
 Video phone - a collection of equipment, software, and firmware, including the UNIT, the handset, and the power supply, used for making video calls.  
   
 2 Requirements  
 1. General Requirements  
 This section specifies basic product requirements that Ojo must meet to satisfy the high-level definition of the product, its components, and expectations of its performance.  
 1.1. The product shall be a video phone suitable for use in consumer households.  
 1.2. The product shall include a UNIT that contains the following:  
 1.2.1. The UNIT shall include a handset cradle and charger.  
 1.2.2. The UNIT shall contain an interface that contains all hardware necessary for the video phone to connect to the cable/DSL modem and the PSTN line.  
 1.2.3. The UNIT shall contain one Ethernet RJ-45 xxxx.  
 1.2.4. The UNIT shall contain one RJ-11 phone xxxx for connection to an analog phone line.  
 1.3. The product shall include a cordless handset, a portable device that contains a microphone and speaker for audio-only calls and for audio privacy during video calls.  
 1.3.1. The handset will include a keypad and navigation device for data entry and menu navigation, and a display.  
 1.3.2. The handset shall have an electrical interface to the UNIT for power charging.  
 1.3.3. The handset shall be a consumer-replaceable component.  
 1.4. The product shall include an external power supply compatible with North American power supplies.  
 1.4.1. The DC input of the power supply will be 12 V.  
 1.4.2. The DC current of the power supply will be 1.5 to 3 A (typical).  
 1.4.3. The UNIT will consume ~30 W.  
 1.4.4. The product will include a power source that accepts input voltage ranging from 100 to 240 VAC at 50/60 Hz  
 1.4.5. The external power supply shall be a consumer replaceable component.  
 1.5. The product shall include component interconnection and power cables:  
 1.5.1. RJ-11 cable (8ft)  
 1.5.2. RJ-45 cable (8ft)  
 1.5.3. Product power supply cable (minimum length 6ft)  
 1.6. The product shall include instructions for product installation, setup and operations.  
 1.7. All in-home components shall be consumer installable.  
 1.7.1. Installation shall not require specialized tools or knowledge.  
 1.7.2. Installation and provisioning will not require more than fifteen minutes under typical installation conditions.  
 1.7.3. Handset battery replacement shall not require specialized tools or knowledge.  
 1.7.4. Diagnostic functions shall be provided such that a consumer guided by a customer service representative could provide useful and meaningful feedback.  
 1.8. The product shall meet regulatory requirements.  
 1.8.1. The product shall meet all specifications required by US regulatory authorities (FCC).  
 1.8.2. Applicable product components shall be designed and certified to meet UL requirements.  
 1.9. The product shall meet standards for power consumption.  
 1.10. The UNIT shall support an inactivity time-out for the display.  
   
 1.10.1. Inactivity time-out shall be activated when the unit has not detected any display related activity in a configurable time.  
 1.10.2. The default time before an inactivity time-out shall be two minutes.  
 1.11. Display related activity will include incoming or outgoing video calls, activation of any menus, activation of features that require the display, and any user input such as key presses.  
 1.12. Return to an active state shall occur within two seconds of the input that triggered the active state. (Numeric key presses will show on LCD; all other key presses will wake unit.)  
 1.13. Handset battery charging shall be accomplished by placing the handset in the UNIT while the UNIT is connected to an active power source.  
 1.14. User-configured information and critical function data shall remain in the unit for a minimum of three years.  
 1.15. The product shall meet minimum requirements for operation, shipping and storage under certain environmental conditions.  
 1.15.1. The product shall be operable withstanding humidity of 0 to 95% non-condensing.  
 1.15.2. The product shall be operable withstanding temperatures of 10 to 40ºC.  
 1.15.3. The product shall be operable after withstanding electrostatic shock to 15kV.  
 1.15.4. The product shall sustain no damage in storage or shipping withstanding humidity of 0 to 100% non-condensing.  
 1.15.5. The product shall sustain no damage in storage or shipping withstanding temperatures of -10 to 60ºC.  
 1.15.6. The product shall sustain no damage in storage or shipping withstanding—  
 1.15.6.1. Frequency Rage: 8 – 33.3Hz.  
 1.15.6.2. Amplitude: 1.3mm  
 1.15.6.3. Sweep: 33.3~400Hz  
 1.15.6.4. Acceleration: 3G  
 1.15.6.5. Cycle: 15min  
 1.15.6.6. X/Y: 2 hours for each direction, 4 hours for Y direction  
 1.15.7. The product shall sustain no damage when dropped in its shipping carton from heights up to three feet.  
 1.15.8. The product shall sustain no damage when dropped in its consumer packaging from heights up to two feet.  
 1.15.9. The product shall sustain no damage when dropped from heights up to one foot.  
 1.15.10. The product shall not exceed maximum failure rates.  
 2. System Requirements  
 This section describes requirements for the overall system, the entire collection of hardware, firmware and software required to make the product work, including cable headend equipment.  
 2.1. The product shall support SIP technology.  
 2.2. The product shall operate at the required bandwidth.  
 2.2.1. The total average bandwidth required for video phone calls shall be configurable to operate on systems with 128Kbps upstream. Typical rate may be 150Kbps. Total average bandwidth will be user-adjustable between 100 and 250 Kbps.  
 2.3. The product shall meet basic system requirements:  
 2.3.1. There may be no Ojo-specific equipment required in the MSO headends or DSL central offices.  
 2.3.2. Data Center functionality may be capable of being distributed, with Multiple System Operator (MSO) capability to add its own Data Center.  
   
 2.3.3. The product/system shall provide a method to ensure a high quality of service during IP based calls.  
 2.3.3.1. Ojo shall have high quality audio and video performance on Ojo-to-Ojo calls, with a typical one way data latency of less than CONFIDENTIAL TREATMENT REQUESTED ms.  
 2.3.3.2. Ojo shall have high quality audio and video performance on Ojo-to-Ojo calls, with a typical data jitter of less than CONFIDENTIAL TREATMENT REQUESTED ms.  
 2.3.3.3. Ojo shall have high quality audio and video performance on Ojo-to-Ojo calls, with a typical data packet loss of less than CONFIDENTIAL TREATMENT REQUESTED packet loss could cause perceptible video artifacts, but the system will operate to CONFIDENTIAL TREATMENT REQUESTED loss.  
 2.3.4. The system shall provide error concealment and recovery.  
 2.4. Product software updates shall be downloadable.  
 2.4.1. Application software shall be downloadable.  
 2.4.1.1. Downloads shall be able to be initiated by the Ojo.  
 2.4.1.2. User settings shall be preserved during application software or OS software revision/update.  
 2.4.1.3. Incomplete download or incomplete installation of application software or OS software shall not negatively impact the functionality of the product in any way that is not easily recovered from.  
2.4.1.4. In the event of unsuccessful installation of OS software, the system shall be able to revert back to a previous version of the OS.  
 2.4.1.5. In the event of unsuccessful installation of application software, the system shall be able to revert to a previous version of the software and return to full functionality.  
 2.4.1.6. The video phone will not be out of service for more than ten minutes during OS and application software updates and downloads.  
 2.4.1.7. User notification that an update is ready for install shall be provided.  
 2.4.1.8. All downloaded production software shall be interoperable with at minimum two previous minor released versions of software.  
2.5. The product shall be capable of interfacing via Ethernet to DOCSIS 1.0 (and higher) cable modems.  
 2.5.1. The product will support DOCSIS 1.2 modems and infrastructure.  
 2.5.2. The product may support DOCSIS 2.0 modems and infrastructure.  
 2.5.3. The product may support EuroDOCSIS.  
 2.6. The product will be capable of interfacing via Ethernet to DSL modems behind a router.  
 2.7. The product shall work with a changing IP address.  
 2.8. The product shall use DHCP.  
 2.9. The product shall support ARP.  
 2.10. Multiple Ojo video phones with unique IP addresses in the same household will be supported.  
 2.10.1. Individual Ojo video phones shall have unique user settings.  
 2.10.2. Multiple Ojo video phones within a household shall have unique phone numbers.  
 2.11. The product shall support a user configurable Phonebook that includes telephone numbers, names and caller ID images.  
 2.11.1. The Phonebook will support a minimum of 100 entries.  
 2.11.2. The Phonebook shall support audio-only and video-and-audio phone numbers.  
 2.12. The product shall support video and audio caller ID.  
 2.12.1. The system will automatically locate caller ID from the Ojo’s Phonebook based on an entered phone number.  
 2.13. The product shall capture received and dialed calls and store them in a calls list.  
   
 2.14. Received calls shall be stored separately from dialed calls.  
 2.14.1. Up to 20 received and 20 sent calls shall be stored in the calls list.  
 2.14.2. After the 20th stored call, new calls replace oldest calls and lists display the last call at the top of the list.  
 3. Mechanical Rqeuirements  
 This section describes the physical characteristics of the product and its components.  
 3.1. The user interface shall meet these requirement:  
 3.1.1. The UI shall provide language support for North American English.  
 3.2. The product shall have clearly labeled inputs, outputs, and LEDs:  
 3.2.1. The UNIT shall have an RJ-45 xxxx, for the modem, labeled: Router / Modem  
 3.2.2. The UNIT shall have an RJ-11 xxxx labeled: Wall  
 3.2.3. The UNIT shall have a power connector labeled: 12V  
 3.2.4. The UNIT shall have a link-status LED  
 3.2.5. The UNIT shall have a speed status LED  
 3.3. The UNIT will weigh less than 3lbs.  
 3.4. The UNIT shall have these user accessible buttons:  
 3.4.1. The UNIT shall have a TALK/SPKR button.  
 3.4.2. The UNIT shall have an END button.  
 3.4.3. The UNIT shall have a LOCATE button.  
 3.5. All UNIT buttons will have a minimum usable life of one million cycles.  
 3.6. UNIT buttons shall be a color that matches the color of the UNIT form factor.  
 3.7. The minimum actuation pressure rating of UNIT buttons shall be 1-8oz.  
 3.8. UNIT buttons shall provide tactile response when pressed.  
 3.9. UNIT buttons shall have labels that beneath the button caps:  
 3.9.1. The TALK button shall be labeled: TALK/SPKR  
 3.9.2. The END button shall be labeled: END  
 3.9.3. The LOCATE button shall be labeled: LOCATE  
 3.10. The UNIT will have a ringer device that shall be capable of playing at least seven ringer sounds.  
 3.11. The UNIT shall provide an audible response to key presses and menu navigation.  
 3.12. The UNIT shall have a control device for adjusting audio volume.  
 3.13. The audio volume control device shall conform to the industrial design of the UNIT.  
 3.13.1. The audio volume control device shall be on the right-hand side of the UNIT base.  
 3.13.2. The audio volume control device shall be labeled as follows:  
 3.13.2.1. The audio volume control device shall be labeled: VOLUME  
 3.13.2.2. The control for increasing volume shall be labeled: + (labeled next to the E in VOLUME)  
 3.13.2.3. The control for decreasing volume shall be labeled: - (labeled next to the V in VOLUME)  
 3.13.3. The audio volume labels shall be silk-screened.  
 3.13.3.1. The color of audio volume labels shall be white.  
 3.14. The UNIT shall provide manual video mute with notification.  
   
 3.14.1. The UNIT shall have a video mute device that shall be capable of placing or removing a physical cover over the camera lens.  
 3.14.2. The video mute device shall protrude provide positive feedback to the user when signalling its condition.  
 3.14.3. The video mute device shall be clearly visible to the user looking at the front of the UNIT.  
 3.14.4. The on or off position of the video mute device shall be communicated to the product at all times to enable appropriate programmatic control of user prompts and on-screen displays.  
 3.14.5. The aperture for the lens and video mute device will be a minimum diameter of 1.2cm.  
 3.14.6. When the video mute device is covering the lens, the video mute device shall display an easily recognizable indicator that the lens is covered.  
 3.14.6.1. The indicator shall be Ojo orange.  
 3.14.6.2. The indicator shall use all available space inside the video mute aperture.  
 3.15. The UNIT camera’s requirements are defined in Video Requirements:  
 3.16. The UNIT LCD’s requirements are defined in Video Requirements:  
 3.16.1. The entire usable viewing area of the LCD display will be available for menus.  
 3.17. The product shall have a cordless handset.  
 3.17.1. The handset will use a NiMH battery.  
 3.17.1.1. The charge time will be 24 hours or less for a full charge.  
 3.17.1.2. The talk time will be six hours.  
 3.17.1.3. The standby time will be 96 hours.  
 3.17.2. The handset will measure 6.25 X 1.63 X 0.82”.  
 3.17.3. The handset will weigh five oz.  
 3.17.4. The range of the handset will be 100 ft.  
 3.17.5. The handset will be able to receive and transmit on ten channels.  
 3.17.6. The cordless phone will use tone (DTMF) dialing.  
 3.17.7. The cordless handset will be DECT-based, 2.4 GHz.  
 3.17.8. Any mechanism used to secure the handset shall not unreasonably impair the removal of the handset from the handset cradle with a single hand.  
4. Video Requirements  
 This section describes requirements related to the product’s video output and input.  
 4.1. The UNIT shall contain an imaging device (camera).  
 4.1.1. The camera will have 640 480 pixels resolution (0.3 Mpixels).  
 4.1.2. The camera’s optical format will be ¼”.  
 4.1.3. The camera’s aperture will be f2.8.  
 4.1.4. The camera’s focal length will be 20 cm to infinity.  
 4.1.5. The camera will have backlight compensation.  
 4.1.6. The camera will have automatic gain control.  
 4.1.7. The camera will have auto white balance.  
 4.1.8. The camera will require a minimum 4 lux illumination.  
 4.2. The UNIT shall contain a display device (LCD) that measures 7in diagonally.  
 4.2.1. The LCD will have 400 cd/m^2 luminance.  
   
 4.2.2. The LCD will be backlit.  
 4.2.3. The LCD will have anti-glare coating.  
 4.2.4. The LCD will have the following viewing angles: H: —50°, +60°; V: —65°, +65°.  
 4.2.5. The LCD will have an active area of 6.1” X 3.4”.  
 4.2.6. The LCD will have an aspect ratio of 16:9.  
 4.2.7. The LCD will have 480 X 854 resolution.  
 4.2.8. The LCD will have 0.06 X 0.185 MM pitch.  
 4.3. The product shall meet minimum video output requirements:  
 4.3.1. The product shall use H.264/ MPEG4 Part 10/AVC, QCIF resolution digital video compression and be capable of 30fps, or better.  
 4.3.2. The UNIT may be capable of simultaneous LCD output of two full-motion/live images, one full-motion recorded image, text, and 16-bit graphics.  
 4.3.3. During calls, the LCD will display a full-motion image of the incoming caller and a full-motion image of the outgoing caller (mirror image).  
 4.3.4. The LCD shall provide a high-quality view within an acceptable viewing range.  
 4.3.5. Under normal good call conditions, the product will return to high quality within CONFIDENTIAL TREATMENT REQUESTED seconds after any UNIT movement ends.  
 4.3.6. The product will employ error resilience, error concealment, and low processing latency.  
 4.3.7. Mirror-image video latency will be CONFIDENTIAL TREATMENT REQUESTED.  
 4.3.8. The display will experience limited video freezes during video calls due to things within our control.  
 4.3.9. The display will experience limited video blocking during video calls due to things within our control.  
 4.3.10. The display will experience limited video breakup during video calls due to things within our control.  
 4.3.11. The display will experience no TOTAL video loss, due to things within our control, during video calls.  
 4.4. Mirror-image video shall be mutable.  
 4.4.1. On incoming calls, Ojo shall, by default, programmatically mute the mirror-image video.  
 4.4.2. Video mute status shall not inhibit the call.  
 4.4.3. Ojo shall not display mirror-image video while video mute is engaged.  
 4.4.4. The other party’s Ojo shall not display incoming video while video mute is engaged.  
 5. Audio Requirements  
 This section describes requirements related to the product’s audio output and input.  
 5.1. The product shall meet minimum audio output requirements:  
 5.1.1. The speakerphone in the UNIT shall be available for voice-only calls and for the audio portion of video calls.  
 5.1.1.1. Speakerphone audio will be full duplex.  
 5.1.1.2. The speakerphone will have adaptive sub-band echo cancellation.  
 5.1.1.2.1. Echo cancellation will cancel echo tails of lengths up to CONFIDENTIAL TREATMENT REQUESTED.  
 5.1.1.3. The speakerphone shall have a frequency range of CONFIDENTIAL TREATMENT REQUESTED.  
 5.1.1.4. The speakerphone will suppress acoustical echo in excess of CONFIDENTIAL TREATMENT REQUESTED.   
   
 5.2. The product shall support iLBC audio compression.  
 5.3. The product shall support G711 and iLBC audio.  
 5.4. The audio stream will use an average bandwidth of CONFIDENTIAL TREATMENT REQUESTED Kbps.  
 5.5. The product will experience minimal audio distortion (clipping, garble) due to things within our control during video calls.  
 5.6. The product shall experience no audio loss during video calls due to the product.  
 5.7. The product will experience minimal audio delay between calling parties during video calls due to the product  
 5.8. There shall be no perceivable delay between audio and video.  
 5.9. The product shall meet minimum audio input requirements:  
 5.9.1. The UNIT microphone pick-up pattern shall deliver optimum audio quality at CONFIDENTIAL TREATMENT REQUESTED horizontally or CONFIDENTIAL TREATMENT REQUESTED vertically from the center of the UNIT.  
 5.9.2. The UNIT microphone pick-up pattern shall deliver acceptable audio quality at CONFIDENTIAL TREATMENT REQUESTED horizontally or CONFIDENTIAL TREATMENT REQUESTED vertically from the center of the UNIT.  
 5.9.3. The UNIT microphone shall have a frequency range of CONFIDENTIAL TREATMENT REQUESTED.  
 5.9.4. The UNIT microphone shall have a signal-to-noise ratio of 65dB.  
 5.9.5. UNIT microphone sensitivity shall be CONFIDENTIAL TREATMENT REQUESTED.  
 5.9.6. The product shall provide UNIT microphone automatic gain control.  
 5.10. The UNIT shall include audio mute functionality.  
 6. User Interface Requirements  
 This section describes requirements related to the product’s user interface (UI), including both physical and programmatic controls and indicators.  
 6.1. The UI shall provide these visual and audible indicators:  
 6.1.1. In standby mode, the handset display will display the following:  
 6.1.1.1. Handset battery charging  
 6.1.1.2. Handset signal strength  
 6.1.2. When the handset is NOT in the cradle, the handset will provide a distinct ringer sound to indicate Handset location when LOCATE button is pressed.  
 6.1.2.1. Handset ring shall end when the caller presses either the END button on the handset or the END button on the display arm.  
 6.1.2.2. Handset ring shall time-out 20 seconds after the LOCATE button is pressed.  
 6.2. The user shall be able to answer an incoming call by pressing the TALK button.  
 6.3. The product shall be capable of initiating calls by user’s direct number entry on the handset’s numeric keypad and then pressing the TALK button.  
 6.3.1. The product will provide an audible response—a brief dial tone when placing a video call and echosed key tones when placing an audio call — when user presses the TALK button after entering phone number on the handset’s numeric keypad.  
 6.4. The product shall redial the last number called when user presses the TALK button twice without entering or selecting a number.  
 6.4.1. The product will provide an audible response—a brief dial tone when placing a video call and echosed key tones when placing an audio call — when user presses the TALK button after entering phone number on the handset’s numeric keypad.  
   
 6.5. The user will be able to set up and use speed dial on the handset’s numeric keypad to initiate calls.  
 6.5.1. To use speed dial, the user shall press any one- or two-digit sequence followed by TALK or SELECT.  
 6.6. When the user initiates a call from an originating Ojo to a receiving Ojo, and the receiving Ojo is engaged in another call, the originating Ojo shall produce a busy display.  
 6.7. When the receiving Ojo is busy and cannot accept a video call, the Ojo originating the video call will try an audio-only call.  
 6.8. If, during a PSTN call, another PSTN call comes in, the TALK button shall act as a “flash” button.  
 6.9. If the called party presses END, the calling Ojo will attempt a PSTN call; if the called party presses END again, the called unit will return to the Home screen and the calling unit will hear a dial tone.  
 6.10. The user shall be able to control video muting.  
 6.10.1. The user shall have the option to un-mute outgoing video at any time during the call.  
 6.10.2. When the user moves the video mute slider to the on (lens capped) position, video images shall be replaced by a canned image and a text message that the camera is off.  
 6.10.2.1. There will be minimal delay of <50ms between user moving the video mute slider to the on position and inset video self- image being replaced by text or no image.  
 6.10.2.2. Units will experience minimal delay of <200ms between user moving the video mute slider to the on position and incoming video image on other party’s phone being replaced by text and canned image.  
 6.10.2.3. Manual video mute shall prevail when the user turns off programmatic video mute while the manual video mute switch is on (lens is capped).  
 6.11. The user shall be able to control audio volume.  
 6.11.1. The GUI shall display an audio volume indicator when the user presses either of the audio volume control buttons on the DU.  
 6.11.2. The audio volume indicator will remain on for up to ten seconds after an audio volume control button press.  
 6.11.3. The audio volume indicator will display a minimum of ten increments between minimum and maximum audio volume.  
 6.11.4. Audio volume will increase by the lesser of 3dB or the current volume each time the user presses the audio volume up control.  
 6.11.5. Volume will decrease by the lesser of 3dB or half of the current volume each time the user presses the audio volume down control.  
6.12. The user shall be able to mute outgoing audio.  
 6.12.1. Audio output volume shall decrease to an inaudible level when user presses the MUTE button.  
 6.12.2. There shall be minimal delay between user pressing MUTE button and audio output volume decreasing to inaudible level.  
 6.13. The user shall be able to have audio privacy.  
 6.13.1. Removing the correctly positioned handset from the UNIT handset cradle will silence the speakerphone and invoke private conversation mode.  
 6.13.2. Returning the correctly positioned handset to the UNIT handset cradle will end private conversation mode and re-enable the speakerphone or end the call.  
 6.14. The user will be able to locate a handset that is not in the handset cradle.  
 6.14.1. The handset will emit a distinct sound when the user presses the LOCATE button.  
 6.15. GUI screen navigation shall be via the navigation device on the handset.  
   
 6.15.1. The GUI shall have a Dialer screen that shall be invoked by numeric key press.  
 6.15.1.1. The Dialer screen will display numbers in an on-screen textbox with minimum delay after numeric key press.  
 6.15.2. The GUI shall include a Calls Received screen that lists captured calls received.  
 6.15.2.1. Users shall be able to initiate a call by selecting a listed number on the Calls Received screen.  
 6.15.2.1.1. The product will provide an audible response—a brief dial tone when placing a video call and echosed key tones when placing an audio call — when user presses the TALK button after entering phone number on the handset’s numeric keypad.  
 6.15.3. The GUI shall include a Calls Dialed screen that lists captured calls dialed.  
 6.15.3.1. Users shall be able to initiate a call by selecting a listed number on the Calls Dialed screen.  
 6.15.3.1.1. The product will provide an audible response—a brief dial tone when placing a video call and echosed key tones when placing an audio call — when user presses the TALK button after entering phone number on the handset’s numeric keypad.  
 6.15.4. The GUI shall include a Phonebook screen that displays a user-created list of telephone numbers, names and photo caller IDs.  
 6.15.4.1. The Phonebook shall support audio-only as well as video and audio numbers.  
 6.15.4.2. Users shall be able to initiate a call by selecting a listed number on the Phonebook screen.  
 6.15.4.2.1. The product will provide an audible response—a brief dial tone when placing a video call and echosed key tones when placing an audio call — when user presses the TALK button after entering phone number on the handset’s numeric keypad.  
 6.15.4.3. Users shall be able to add phonebook entries.  
 6.15.4.4. Users shall be able to delete phonebook entries.  
 6.15.4.5. Users shall be able to edit phonebook entries.  
 6.15.5. Users shall be able to capture and store caller ID photos.  
 6.15.6. The GUI shall have an Incoming Call screen that shall be invoked by an incoming call before the second ring.  
 6.15.6.1. The Incoming Call screen shall display caller information—including caller’s number, name, and image or generic icon (caller ID)—and connection status. Information within the unit’s local Phonebook will be provided when available; if not, incoming caller ID information will be presented.  
 6.15.7. The product shall experience minimal delay between user pressing TALK button to receive call and image display.  
 6.15.8. The GUI shall have a Preview screen that shall be invoked by pressing “#” when not in call. The Preview screen displays mirror-image video in the incoming video area.  
 6.15.9. Any common information displayed on both the UNIT LCD and the handset LCM shall be displayed simultaneously.  
 6.15.10. The GUI shall display error messages.  
 6.15.11. The GUI shall provide controls for user-configured settings.  
 6.15.11.1. The LCD brightness shall be user-configurable.  
 6.15.11.2. The IP setting shall be user-configurable.  
 6.15.11.3. The ring tone shall be user-configurable.  
 6.15.11.4. The ringer volume shall be user-configurable.  
 7. Activation and Billing Requirements  
   
 This section describes requirements related to product activation and service billing.  
 7.1. The system shall support the ability to provide a monthly billable service.  
 7.2. Soft disconnection (removal of billing authorization) from the service will disable the product’s ability to make video phone calls.  
 7.3. Video phones connected to active PSTN lines shall continue to function as audio-only phones.  
 7.4. Activating shall require minimal user effort.  
 7.4.1. No special knowledge outside of basic information shall be required.  
 7.5. The un-provisioned video phone shall try to connect to the Data Center upon power-up and boot-up.  
 7.5.1. The GUI shall provide status messages to the user throughout boot-up and connection.  
 7.5.2. The GUI shall provide error messages to the user to debug connection and setup.  
 7.6. The user shall have the option to modify provisioning and registry information after provisioning process has been completed.  
 7.7. The video phone will use the same telephone number (including country code and area code) as the PSTN phone in the household when available.  
 7.7.1. Where a PSTN number is unavailable, the video phone will use another unique identifier to permit incoming and outgoing video calls.  
 7.7.2. Where a PSTN number is not desirable, the video phone may use another unique identifier to permit incoming and outgoing video calls.  
 7.8. Registration of some video phone components shall be required for interoperability of components.  
 7.8.1. All devices requiring registration and packaged in the same retail box shall be registered to the appropriate device prior to shipping.  
 7.8.2. Unregistered devices shall not be interoperable.  
 7.9. There shall be a means to permit a consumer to register devices in the field.  
 7.9.1. Registration shall require information specific to the registering devices (serial numbers, MAC addresses, etc.).  
 8. Security Requirements  
 This section describes requirements related to system security.  
 8.1. Security levels shall meet or exceed security levels for other cable or DSL modem devices.  
 8.2. Video phone communication sessions shall maintain a security level consistent with high-volume cordless telephones.  
 8.3. Video phone communications sessions shall use a minimum of 128-bit AES encryption.  
 8.4. Audio communication sessions shall maintain a security level consistent with high-volume cordless telephones.  
 8.5. The product shall attempt to prevent users from stealing bandwidth.  
 8.6. Software downloads shall be secure at a level consistent with enterprise software standards.  
 8.7. SIP traffic shall use a minimum of 128-bit encryption.  
 8.8. Ojo provisioning shall use a minimum of 128-bit encryption.  
 8.9. All Ojo devices and network components shall be capable of preventing 99% of all “Denial of Service” attacks.  
 8.10. Any information stored in in-home Ojo devices shall be protected from access by non-authorized, non-local users.  
 8.11. Ojo devices shall contain the security necessary to prevent a non-authorized user from stealing the identity of another Ojo device (spoofing).  
   
 8.11.1. The Ojo devices shall include a warranty invalidation device, i.e., the means to determine when an unauthorized user has attempted to access not user-accessible hardware cavities.  
 9. Network Requirements  
 This section describes requirements related to the product’s networking capability.  
 9.1. The product will share the DSL or cable modem with other devices in the household.  
 9.2. Other devices shall include personal computers and SIP devices.  
 9.3. The prodcut will support TCP/IP, UPD/IP, RTP, and SIP RFC-3261 protocols.  
 9.4. The product will use a 10/100 Base T Ethernet network interface.  
 9.5. The product will support SIP/NCS, TCP/IP, UDP, and RTP commuication standards.  
 9.6. The product shall be operable from behind a firewall or NAT server, whether such device is part of the modem or is external.  
 9.7. The product shall support standard DHCP protocol.  
 9.7.1. The product shall act as a DHCP client.  
   
 Exhibit B  
 DEVELOPMENT PROCEDURES  
 I. Definitions:  
 A. “Development Specification” means a written presentation prepared by Developer and accepted in writing by Mototech, specifically identifying the requirements of the Final Release of the Product, including without limitation a detailed description of the features, functions and performance requirements of the Product and the Test Plan for the Product.  
 B. “Test Plan” means a written presentation prepared by Mototech and accepted in writing by Developer, specifically identifying the procedures for testing the required releases of the Product for conformance with the Development Specification, the results required for successful compliance with and completion of such Test Plan, and the reports that will be required to document such successful completion of such Test Plan.  
 C. “Beta Release” or “Prototype” means a preliminary release of the Product in substantial conformance with the Development Specifications, with all features and functions implemented (unless agreed in writing by Developer), which effectively addresses all comments theretofore received in reviews of any prior releases, and which successfully complies with any corresponding elements of the Test Plan.  
 D. “Final Release” means a post Beta release of the Product meeting all Development Specification and Beta-Release requirements and which effectively addresses all comments theretofore received in reviews of any prior releases, and which successfully complies with any corresponding elements of the Test Plan. Final testing has been completed and all known defects have been fixed. The Product Documentation accompanying the Final Release shall be adequately complete and detailed to reasonably afford the ability to manufacture, modify, support and maintain the Product without undue experimentation.  
 E. “Critical Design Review” or “CDR”, if required by this Agreement, means a written and in person presentation prepared and conducted by Mototech and accepted in writing by Developer, reviewing the Product and the Development Technology after the successful delivery of the Beta Release and a copy of the Development Documentation complete and current as of the delivery of the Beta Release, including without limitation the test results of any elements of the Test Plan for the Beta Release, a listing of any comments and issues which need to be addressed and the plan for addressing the same.  
 F. “Product Documentation” means all then existing and current tangible information, regardless of media, which substantially relates to the design, development, manufacture, use, operation, support or maintenance of the Development Technology, including without limitation any bills of material, drawings, schematics, software copies and listings, test results, and any reports and documented procedures relevant thereto.  
 II. Mototech Development Deliverables:  
 A. Schematics  
B. Mechanical drawings  
C. Assembly drawing  
D. Parts list  
E. Test procedures  
F. PCB artwork and electronic files  
G. Prototype units (3)  
H. Prototype Documentation  
I. Prototype Test report  
J. Trial Units (150)  
K. Trial Unit documentation  
L. Trial Unit Test plan  
 III. Developer Deliverables:  
 A. Product requirement specification  
   
 B. Mechanical concept drawings  
C. Functional specifications  
D. Software code objects for each development phase  
 IV. Development Schedule, Milestones and Milestone Payment  
 Such milestones set forth herein shall be completed in the sequential order indicated and the deliverables associated with such milestones cannot be skipped or combined out of sequence. Upon the completion of each development milestone as set forth herein, Mototech shall inform Developer in writing of the completion of such milestone and shall promptly delivery to Developer at the address for notices as specified herein all materials required to be provided in accordance with such milestone. All milestone deliverables hereunder will include such Product Documentation or updates thereto as are in existence at the time of delivery of such deliverable or is otherwise required by the Development Specification.  
 Description  
 Date Due  
 Payment  
 Trial Prototype  
 10/B/03  
 $  
100K of equity at market price  
\*  
Trial Pre Production  
 12/B/03  
 $  
100K  
 Final Prototype  
 4/B/04  
 $  
100K  
 Pre-production pilot units  
 8/M/04  
 $  
100K  
 Production sign off  
 9/B/04  
 $  
200K  
 Total Development Funding  
 $  
 \*This will be accomplished by the grant to Mototech as a consultant to WorldGate, of an immediately vested stock option under the terms and conditions of WorldGate’s 1996 Stock Option Plan, with the $100K being applied to pay the exercise price for the option.  
Developer shall promptly examine such deliverables as the milestones require to determine if they conform to the requirements hereof, and shall diligently thereafter notify Mototech in writing upon Developer’s acceptance or rejection of the same. If Developer believes a deliverable hereunder is defective or otherwise fails to conform to the requirements as set forth herein, including without limitations the warranties of Mototech hereunder, Developer will furnish Mototech with notice thereof, advising Mototech of the nature of the defect. Mototech will have a reasonable opportunity to investigate any alleged defect or failure and, if the same did not result from unauthorized modification or misuse by Developer, its Affiliates or their customers, Mototech shall promptly remedy the same, without charge, by repair or replacement meeting the warranties and without said defect. The Parties acknowledge that such schedule as is set forth herein anticipates this review, approval and remedy process, and provided that both Parties are diligent in fulfilling their obligations hereunder, sets forth a reasonable time frame for the performance of this development effort.  
 Developer will promptly remit the corresponding development funds (if any) upon the timely and conforming delivery of the milestones set forth below. In no event shall Developer be obligated to remit a development funding installment until Mototech has successfully completed the corresponding milestone. If such milestone payment includes payment for materials, components, equipment, unique fixtures or other goods which are ultimately to be delivered to or owned by Developer hereunder, title to the same shall transfer to Developer upon Mototech’s receipt of such payment (Risk of Loss shall however remain with Mototech until delivery to Developer), and Developer shall be entitled to immediate possession of the same upon demand. Mototech shall cooperate fully in this regard, including without limitation, executing whatever documentation is reasonably required to accomplish the aforesaid. Furthermore Mototech shall ensure that such materials, components, equipment, unique fixtures and other goods are not subject to any mortgage, pledge, lien, attachment or other adverse claim or encumbrance of any third parties.  
 V. Modification of Specifications, Schedule and Procedures.  
 Developer shall have the right at any time and from time to time, to make changes to the Development Specifications and schedule for performance hereunder, subject to the following. If any such changes cause an increase or decrease in the cost, or the time required for the performance as set forth herein, an equitable adjustment shall be made and this Agreement shall be modified in writing accordingly. Mototech agrees to accept any such changes subject to this paragraph. Such equitable adjustment shall be Mototech’s only remedy for such changes. This right to an adjustment with respect to any change shall be deemed waived by  
   
 Mototech unless Mototech has, within thirty (30) days after the request for such change, asserted a claim for the same and advised Developer of the details of such adjustment.  
 VI. Design Reviews, Reporting Procedures and Project Coordinators.  
 Mototech shall endeavor to keep Developer fully informed as to the progress of the development efforts hereunder and any material problems which are experienced. Mototech shall submit periodic status reports and shall conduct such design reviews as are reasonably require to accomplish such process, and as are reasonably required to resolve any material functional, parametric, performance, device qualification or other similar problems which may arise during the development process hereunder and shall notify Developer in writing as to the timing and agenda of all design reviews to be held hereunder. All material actions taken as a result of such design reviews shall be documented by Mototech and furnished to Developer for its review. The Parties hereby agree that the following individuals have been designated as project coordinators:  
 For Mototech:  
 For Developer:  
Xxxxxxx Xxxxxxxx – Tech lead/Program Manager  
   
 Exhibit C  
 NON-DISCLOSURE AGREEMENT  
 NON-DISCLOSURE AGREEMENT  
 This Agreement is entered into and effective this 9th day April, 2003 between WorldGate Communications, Inc. (“WGC”) and the participant identified below (“Participant” and together with WGC, the “Parties” or a “Party” as the case may be). In order to protect certain confidential information that may be disclosed between them, WGC and PARTICIPANT agree as follows:  
 1. WGC and its affiliated companies have developed certain proprietary information relating to their strategic, financial and other business plans as well as the marketing, design and operation of their products and services and PARTICIPANT has developed certain proprietary information relating to: NONE  
 2. In order to pursue a potential business relationship between them relating contract manufacturer of WGC’s product (“Purpose”), WGC and PARTICIPANT  
each recognize that it may be necessary to disclose information of the nature set forth in t he p receding paragraph to the other (“Recipient”) which is considered confidential and/or proprietary (“Proprietary Information”) by the party disclosing the information (“Discloser”).  
 3. Recipient agrees to safeguard the confidentiality of any Proprietary Information it receives from Discloser that is marked or otherwise indicated by Discloser prior to disclosure hereunder as being “Proprietary” or “Confidential”, by applying policies and procedures adequate for that purpose, including without limitation, restricting the disclosure of this Proprietary Information to employees and consultants needing to know the same for the Purpose of this Agreement, who have agreed in writing to safeguard such Proprietary Information in a manner consistent with the provisions of this Agreement. Recipient shall not reproduce any Proprietary Information nor disclose any Proprietary Information to any other person, firm or corporation, nor use or disclose the same except for the Purpose stated hereinabove, and shall exercise at least the same degree of care to guard against disclosure or unauthorized reproduction or use of such Information, as Recipient employs with respect to its own Proprietary Information, but in no event less than reasonable care.  
 4. In the event Discloser discloses its Proprietary Information to Recipient otherwise than as fixed in a tangible medium of expression, Discloser shall inform Recipient prior to the disclosure that such Proprietary Information is deemed confidential and/or proprietary, and shall provide Recipient with a brief written description of such Proprietary Information, either prior to or within thirty (30) days of such disclosure. Recipient shall, upon being notified that such information is Proprietary Information, have the same obligations with respect to such Proprietary Information as described in Section 3. “Tangible medium of expression” as used herein shall be deemed to include, by way of example, memoranda, written descriptions, drawings, photographs, models, prototypes, tapes, disks and circuitry.  
 5. Recipient agrees to promptly notify Discloser of any inadvertent unauthorized use, reproduction or disclosure of any Proprietary Information it has received from Discloser and to take prompt and effective steps to reclaim the same and to prevent recurrence of such use, reproduction or disclosure.  
 6. Recipient shall have no obligation hereunder with respect to any information which:  
(a) is already properly known to Recipient other than as a result of a prior confidential disclosure by Discloser;  
(b) is or becomes publicly known otherwise than by Recipient’s (or someone receiving the information from Recipient) fault or breach of this Agreement;  
(c) is rightfully received by Recipient without restriction from a third party who is not under an obligation of confidentiality, directly or indirectly, to Discloser;  
(d) is independently developed by Recipient without benefit of the Proprietary Information received hereunder;  
(e) is approved for release in writing by Discloser; or  
(f) is required to be disclosed by Recipient pursuant to law or judicial or regulatory action, provided that Discloser is promptly notified at the time such action is initiated and Recipient fully cooperates with Discloser in seeking continued confidential treatment of such information to the extent possible.  
 7. All tangible media of expression wherein Discloser’s Proprietary Information is fixed, and which have been delivered by Discloser to Recipient pursuant to this Agreement, shall be and remain the property of Discloser. All such tangible media of expression, and any copies thereof, shall be promptly returned to Discloser upon written request, or destroyed at Discloser’s option, and in the event of such requested destruction, Recipient shall provide written certification of compliance within thirty (30) days of such written request.  
 8. Nothing herein shall be construed as a warranty of the accuracy, worth or fitness of the Information furnished pursuant to this Agreement, nor as a grant of any rights to any invention, work, discovery or improvement so furnished, nor as a commitment to enter into any future agreement for any continuing relationship whether for the purchase or supply of products or services, or otherwise.  
 9. Recipient agrees that it will not indirectly (i) export or re-export any of Discloser’s Proprietary Information, or any products using such Proprietary Information, or (ii) use any such Proprietary Information to engage in or facilitate the trading of any securities, in either case, in violation of any prevailing laws and regulations in any applicable jurisdiction.  
 10. This Agreement shall have a term of three years beginning with the effective date set forth above, provided however, that either party may terminate this Agreement upon at least thirty days prior written notice. The expiration or termination of this Agreement shall, however, have no affect upon the obligations imposed by this Agreement with respect to Proprietary Information disclosed prior to such termination or expiration, which obligations shall end four years from the date of such disclosure hereunder.  
 11. This Agreement contains the entire understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior understandings in connection herewith. No modification or alternation shall be binding unless executed in writing by the parties. No waiver of any provision of this Agreement shall be deemed or construed a waiver of any other provisions hereof (whether or not similar) nor shall a waiver be construed a continuing waiver unless expressly so stated.  
 12. This Agreement shall be construed in accordance with the laws of the Commonwealth of Pennsylvania. Jurisdiction and venue for any suit or proceeding brought with regard to this Agreement shall be either in the Court of Common Pleas of Bucks County, Pennsylvania or the United States District Court for the Eastern District of Pennsylvania. Each party understands and acknowledges that violation of its covenants and agreements herein contained may cause the other party irreparable harm and damage which may not be recoverable at law. Each party hereby agrees that the other party’s remedies for a breach hereof may be in equity by way of injunctive relief, as well as for damages and any other relief available, whether in law or in equity.  
   
 IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement on the date first written above.  
 PARTICIPANT: Mototech Inc.  
WorldGate Communications, Inc.  
 By:  
 By:  
 Name:  
XX Xxxx  
Name:  
Xxxxxxx Xxxxxxxxx  
 Address:  
0, Xxxx Xxx XX Xxxxxxx-Xxxxx Xxxxxxxxxx Xxxx  
Address:  
0000 Xxxxxxx Xxxxxx - Ste. 100  
 Hsin-Chu, Taiwan  
 Xxxxxxx, XX 00000  
 Title:  
General Manager  
Title:  
COO  
 Tel.:  
000-0-000-0000  
 Fax:  
000-0-000-0000  
Tel.:  
000-000-0000  
Fax:  
000-000-0000  
 E-mail:  
xxxxxx@xxxxxxxx.xxx.xx  
E-Mail:  
xxxxxxxxxx@xxxxx.xxx  
Date:  
 Date:  
4/9/03